

This document provides pertinent information concerning the modification of the VPDES Permit listed below. This modification reflects the relocation of the discharge point to a free flowing section of the existing unnamed tributary and subsequent changes to the effluent limitations. This permit will be processed as a Minor, Municipal permit. The discharge results from the operation of a 0.006 MGD wastewater treatment plant and includes an expansion to 0.010 MGD. This permit action consists of updating the proposed effluent limits to reflect the current Virginia Water Quality Standards (effective 6 January 2011) and updating permit language as appropriate based on the alterations at this facility. The effluent limitations and special conditions contained within this permit will maintain the Water Quality Standards of 9VAC25-260 et seq.

1. Facility Name and Mailing Address: Dominion Campground, Inc.  
7400 Brookside Lane  
Fredericksburg, VA 22408  
SIC Code: 4952  
Wastewater Treatment Plant  
  
Facility Location: 7400 Brookside Lane  
Fredericksburg, VA 22408  
County: Spotsylvania  
  
Facility Contact Name: Ron & Susan Hart  
Telephone Number: 540-898-7252  
Facility Email Address: [Susan@fredericksburgkoa.com](mailto:Susan@fredericksburgkoa.com)
2. Permit No.: VA0091014  
Expiration Date: 13 August 2017  
Other VPDES Permits: Not Applicable  
Other Permits: PWSID 6177230 – public water supply  
E2/E3/E4 Status: Not Applicable
3. Owner Name: Dominion Campground, Inc., TA Fredericksburg KOA  
Owner Contact / Title: Susan Hart / President  
Telephone Number: 540-898-7252  
Owner Email Address: [Susan@fredericksburgkoa.com](mailto:Susan@fredericksburgkoa.com)
4. Application Complete Date: 7 July 2015  
Permit Drafted By: Douglas Frasier  
Date Drafted: 11 August 2015  
Draft Permit Reviewed By: Anna Westernik  
Date Reviewed: 12 August 2015  
Draft Permit Reviewed By: Alison Thompson  
Date Reviewed: 19 August 2015  
Public Comment Period: Start Date: 27 August 2015  
End Date: 28 September 2015
5. Receiving Waters Information: See **Attachment 1** for the Flow Frequency Determination.  
Receiving Stream Name: Ni River, UT  
Stream Code: 8-XHK  
Drainage Area at Outfall: 4.39 square miles  
River Mile: 0.73  
Stream Basin: York River  
Subbasin: None  
Section: 3  
Stream Class: III  
Special Standards: None  
Waterbody ID: VAN-F15R  
7Q10 Low Flow: 0.010 MGD  
7Q10 High Flow: 0.34 MGD  
1Q10 Low Flow: 0.007 MGD  
1Q10 High Flow: 0.24 MGD  
30Q10 Low Flow: 0.015 MGD  
30Q10 High Flow: 0.68 MGD  
Harmonic Mean Flow: Undetermined  
30Q5 Flow: 0.036 MGD

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## 6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<input checked="" type="checkbox"/> State Water Control Law	<input checked="" type="checkbox"/> EPA Guidelines
<input checked="" type="checkbox"/> Clean Water Act	<input checked="" type="checkbox"/> Water Quality Standards
<input checked="" type="checkbox"/> VPDES Permit Regulation	Other: _____
<input checked="" type="checkbox"/> EPA NPDES Regulation	

## 7. Licensed Operator Requirements: Class IV

## 8. Reliability Class: Class II

## 9. Facility / Permit Characterization:

<input checked="" type="checkbox"/> Private	<input checked="" type="checkbox"/> Effluent Limited	_____ Possible Interstate Effect
_____ Federal	<input checked="" type="checkbox"/> Water Quality Limited	_____ Compliance Schedule
_____ State	_____ Whole Effluent Toxicity Program	_____ Interim Limits in Permit
_____ POTW	_____ Pretreatment Program	_____ Interim Limits in Other Document
<input checked="" type="checkbox"/> eDMR Participant	_____ Total Maximum Daily Load (TMDL)	

## 10. Wastewater Sources and Treatment Description:

This facility consists of 117 campsites with approximately one half of the sites possessing connections to potable water and the sanitary sewer system. Other wastewater flows are generated from the use of the bathhouse, laundry facilities, on-site camp store and a holding tank dump station.

The treatment plant serving this facility consists of a 2,000 gallon trash tank, a 5,000 gallon aerated equalization tank, four (4) package aerobic treatment plants (each rated at 1,500 gallons per day) manufactured by Multi-Flo, a tablet chlorinator, post aeration and dechlorination.

The permittee plans to extend/relocate the outfall point approximately 200 feet to the free-flowing stream that borders the eastern side of the property. This modification reflects this change in regards to this portion of the unnamed tributary's characteristics.

See **Attachment 2** for a facility schematic/diagram.

TABLE 1 OUTFALL DESCRIPTION				
Number	Discharge Sources	Treatment	Design Flow	Latitude / Longitude
001	Domestic wastewater	See Section 10	0.006 MGD (expansion at 0.010 MGD)	38° 09' 40" / 77° 28' 37" *
				38° 09' 40.6" / 77° 28' 35.2" **
See <b>Attachment 3</b> for the Guinea topographic map.				
*Current outfall location.				
**Proposed outfall location (approximate).				

## 11. Sludge Treatment and Disposal Methods:

Sludge/septage is removed as necessary from the septic tanks, equalization tank and the Multi-Flo units by a licensed contractor; currently Joe Wheeler's Septic Tank Service (VDH RAHD 17). This facility generates approximately 0.15 dry metric tons per year. The septage is hauled to the Massaponax Wastewater Treatment Plant (VA0025658) for further treatment.

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**12. Permitted Discharges Located Within Waterbody VAN-F15R:**

TABLE 2 PERMITTED DISCHARGES			
Permit Number	Facility Name	Type	Receiving Stream
VAG110079	Virginia Concrete Company – Spotsylvania	Concrete Products General Permit	Ni River, UT
VAG110187	Rowe Concrete LLC – Spotsylvania Plant		
VAR050862	Superior Paving Corp. – Spotsylvania	Stormwater Industrial General Permit	Massaponax Creek, UT
VAG406396	Dojo Aikido	Small Municipal ≤ 1,000 gpd General Permit	Ni River, UT
VAG840166	Luck Stone – Massaponax	Non Metallic Mineral Mining General Permit	Ni River
VAG840104	Luck Stone – Spotsylvania		

**13. Material Storage:**

TABLE 3 MATERIAL STORAGE		
Materials Description	Volume Stored	Spill/Stormwater Prevention Measures
Calcium Hypochlorite tablets	(4) 5-gallon pails	Stored in shed, under roof
Dechlorination tablets	(1) 5-gallon pails	

**14. Site Inspection:**

Performed by DEQ-NRO Compliance Staff on 20 July 2010 (see **Attachment 4**).

DEQ-NRO Permitting Staff conducted a site visit on 21 April 2015 in order to evaluate stream attributes/conditions. Photos of the receiving stream taken at various locations upstream of the outfall as downstream was inaccessible due to swampy conditions are included in **Attachment 4**; after the inspection report.

**15. Receiving Stream Water Quality and Water Quality Standards:****a. Ambient Water Quality Data**

This facility discharges into an unnamed tributary to the Ni River. This tributary has not been monitored or assessed by DEQ. The nearest downstream DEQ monitoring station is 8-PNI002.43, located on the Poni River at the Rt. 606 bridge crossing, approximately 3.2 miles downstream of Outfall 001. The following is the summary for this segment of Poni River, as taken from the 2012 Integrated Report:

Class III, Section 3.

DEQ monitoring stations location in this segment of the Ni River: Ambient station 8-PNI002.43, at Route 606.

*E. coli* monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use.

The wildlife and aquatic life uses are considered fully supporting.

The fish consumption use was not assessed.

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## b. 303(d) Listed Stream Segments and Total Maximum Daily Loads (TMDLs)

TABLE 4 DOWNSTREAM 303(d) IMPAIRMENTS AND TMDLs					
Waterbody Name	Impaired Use	Cause	TMDL Completion/Schedule	WLA	Basis for WLA
<i>Impairment Information in the 2012 Integrated Report</i>					
Ni River	Aquatic Life	Benthic Macroinvertebrates	2022	--	--
Poni River	Recreation	<i>E. coli</i>	2016 (in development)	TBD	--
Mattaponi River	Fish Consumption	PCBs	2022	--	--
		Mercury	2018	--	--

This facility discharges to an unnamed tributary to the Ni River within the Chesapeake Bay watershed. The receiving stream has been identified in the Chesapeake Bay TMDL; which was approved by the Environmental Protection Agency (EPA) on 29 December 2010. The TMDL addresses dissolved oxygen (D.O.), chlorophyll a and submerged aquatic vegetation (SAV) impairments in the main stem Chesapeake Bay and its tributaries by establishing nonpoint source load allocations (LAs) and point source wasteload allocations (WLAs) for total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS) to meet applicable Virginia Water Quality Standards contained in 9VAC25-260-185.

Implementation of the Chesapeake Bay TDML is currently accomplished in accordance with the Commonwealth of Virginia's Phase I Watershed Implementation Plan (WIP); which was approved by EPA on 29 December 2010. The approved WIP recognizes the *General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed of Virginia* (9VAC25-820 et seq.) as controlling the nutrient allocations for nonsignificant Chesapeake Bay dischargers. The approved WIP states that for nonsignificant municipal facilities, nutrient WLAs are to be consistent with Code of Virginia procedures; which set baseline WLAs at 2005 permitted design capacity nutrient load levels. The WIP considers TSS WLAs for nonsignificant facilities to be aggregate allocations when TSS limits are included in individual VPDES permits in conformance with the technology-based requirements found in the Clean Water Act. Furthermore, the WIP recognizes that so long as the aggregated TSS permitted loads for all dischargers is less than the aggregated TSS load in the WIP, the individual permit will be consistent with the TMDL. This individual permit includes TSS limits of 20 mg/L that are in conformance with technology-based requirements and, in turn, are consistent with the Chesapeake Bay TMDL.

40 CFR 122.44(d)(1)(vii)(B) requires permits to be written with effluent limits necessary to meet water quality standards and to be consistent with the assumptions and requirements of applicable WLAs. This facility is classified as a nonsignificant Chesapeake Bay discharger and has not made application for a new or expanded discharge since 2005. It is therefore covered by rule under the 9VAC25-820 regulation.

In addition, this individual permit contains limits for ammonia, cBOD<sub>5</sub> and dissolved oxygen which provide protection of instream D.O. concentrations of at least 5.0 mg/L. Furthermore, implementation of the full Chesapeake Bay WIP, including GP reductions combined with actions proposed in other source sectors, is expected to adequately address ambient conditions such that the proposed effluent limits found within this individual permit are consistent with the Chesapeake Bay TMDL and will not cause an impairment or observed violation of the standards for D.O., chlorophyll a or SAV as required by 9VAC25-260-185.

The planning statement requested that this facility conduct nutrient monitoring on a quarterly basis for the noted downstream benthic impairment TMDL development. Previous permit terms contained limitations for total Kjeldahl nitrogen and total phosphorous; providing data for these two parameters (see **Attachment 7**). This modification will require ammonia limitations, providing additional data. Since the purpose of this modification is the relocation of the discharge point and the next reissuance in 2017 may include nutrient monitoring to verify assumptions made during the Chesapeake Bay TMDL development, per current agency guidance, it is staff's best professional judgement that nutrient monitoring not be included during this modification but will be addressed, as warranted, during the forthcoming reissuance.

The planning statement is located in **Attachment 5**.

c. Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, an unnamed tributary to the Ni River, is located within Section 3 of the York River Basin and classified as Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32° C and maintain a pH of 6.0 – 9.0 standard units (S.U.).

The Freshwater Water Quality / Wasteload Allocation Analyses for the 0.006 MGD and 0.010 MGD facilities are located in **Attachment 6a** and **6b**, respectively and detail other water quality criteria applicable to the receiving stream. Some Water Quality Criteria are dependent on the pH, temperature and total hardness of the receiving stream and/or final effluent. These values were utilized during the criterion determination for the following pollutants:

pH and Temperature for Ammonia Criteria

The fresh water, aquatic life Water Quality Criteria for ammonia is dependent on the instream pH and temperature. Since the effluent may have an impact on the instream values, the pH and temperature effluent values must also be considered when determining the ammonia criteria for the receiving stream. The 90th percentile pH and temperature values are utilized because they best represent the critical conditions of the receiving stream.

Staff utilized all of the May 2009 – February 2012 reported effluent pH data to ascertain the 90<sup>th</sup> and 10<sup>th</sup> percentile values (7.9 S.U. and 7.5 S.U., respectively). These are the same data used during the 2012 reissuance. A default temperature value of 25° C and an assumed temperature value of 15° C for summer and winter, respectively, were utilized since effluent temperature data was not readily available. Since there is no ambient water quality data for the stream, it was staff's best professional judgement to use the same above values during the analysis. The basis for this is that during critical30Q10 flow conditions, the receiving waters would mirror that of the discharge.

The ammonia water quality standards calculations are shown in **Attachment 6a** and **6b**.

Hardness Dependent Metals Criteria

The Water Quality Criteria for some metals are dependent on the effluent and/or receiving stream total hardness values (expressed as mg/L calcium carbonate). There is no hardness data for this facility or the receiving stream. Staff guidance suggests utilizing a default hardness value of 50 mg/L CaCO<sub>3</sub> for streams east of the Blue Ridge.

The hardness dependent metals criteria in **Attachment 6a** and **6b** are based on this default value.

Bacteria Criteria

The Virginia Water Quality Standards at 9VAC25-260-170.A state that the following criteria shall apply to protect primary recreational uses in surface waters:

*E. coli* bacteria per 100 mL of water shall not exceed the following:

	Geometric Mean <sup>1</sup>
Freshwater <i>E. coli</i> (N/100 mL)	126

<sup>1</sup>For a minimum of four weekly samples taken during any calendar month

d. Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, an unnamed tributary to the Ni River, is located within Section 3 of the York River Basin. This section has not been designated with a special standard.

**16. Antidegradation (9VAC25-260-30):**

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

It is staff's best professional judgement that the receiving stream be classified as Tier 1 based on the noted downstream impairments. In addition, the Poni River bacteria TMDL should be developed in 2016 and will include this discharge during its final development. The proposed permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

**17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:**

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points are equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLAs) are calculated. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. In the case of ammonia evaluations, limits are needed if the 97th percentile of the thirty-day average effluent concentration value is greater than the chronic WLA. Effluent limitations are then calculated on the most limiting WLA, the required sampling frequency and statistical characteristics of the effluent data.

**a. Effluent Screening**

Effluent data obtained from the Discharge Monitoring Reports (DMRs) for May 2009 through February 2012 has been reviewed and determined to be suitable for evaluation. Effluent limit exceedances have been noted for carbonaceous-biochemical oxygen demand, phosphorus and total Kjeldahl nitrogen. This facility has been referred to enforcement as noted in Section 26 of this Fact Sheet.

Please see **Attachment 7** for a summary of effluent data.

The following pollutants require a wasteload allocation analysis: ammonia since this is a facility treating domestic sewage and total residual chlorine since it is utilized for disinfection.

**b. Mixing Zones and Wasteload Allocations (WLAs)**

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:

- WLA = Wasteload allocation
- C<sub>o</sub> = In-stream water quality criteria
- Q<sub>e</sub> = Design flow
- Q<sub>s</sub> = Critical receiving stream flow  
(1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria; and 30Q5 for non-carcinogen human health criteria)
- f = Decimal fraction of critical flow
- C<sub>s</sub> = Mean background concentration of parameter in the receiving stream.

The Water Quality Standards contain two distinct mixing zone requirements. The first requirement is general in nature and requires the "use of mixing zone concepts in evaluating permit limits for acute and chronic standards in 9VAC25-260-140.B". The second requirement is specific and establishes special restrictions for regulatory mixing zones "established by the Board".

The Department of Environmental Quality uses a simplified mixing model to estimate the amount of mixing of a discharge with the receiving stream within specified acute and chronic exposure periods. The simplified model contains the following assumptions and approximations:

- The effluent enters the stream from the bank, either via a pipe, channel or ditch.
- The effluent velocity isn't significantly greater (no more than 1 - 2 ft/sec greater) than the stream velocity.
- The receiving stream is much wider than its depth (width at least ten times the depth).
- Diffusive mixing in the longitudinal direction (lengthwise) is insignificant compared with advective transport (flow).
- Complete vertical mixing occurs instantaneously at the discharge point. This is assumed since the stream depth is much smaller than the stream width.
- Lateral mixing (across the width) is a linear function of distance downstream.
- The effluent is neutrally buoyant (e.g. the effluent discharge temperature and salinity are not significantly different from the stream's ambient temperature and salinity).
- Complete mix is determined as the point downstream where the variation in concentration is 20% or less across the width and depth of the stream.
- The velocity of passing and drifting organisms is assumed equal to the stream velocity.

Staff derived wasteload allocations where parameters are reasonably expected to be present in an effluent (e.g., total residual chlorine where chlorine is used as a means of disinfection) and where effluent data indicate the pollutant is present in the discharge above quantifiable levels. With regard to the Outfall 001 discharge, ammonia as N is likely present since this is a wastewater treatment plant treating domestic sewage and total residual chlorine may be present since chlorine is used for disinfection. As such, **Attachments 8a** and **8b** (0.006 MGD and 0.010 MGD facility, respectively) detail the mixing analysis results, which were utilized for WLA derivations for these pollutants.

c. Effluent Limitations, Outfall 001 – Toxic Pollutants

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Ammonia as N/TKN

As noted in Section 10 of this Fact Sheet, the facility is in the planning process of relocating the discharge point for this treatment system. The current discharge point will be moved approximately 200 feet and will enter the free flowing section of the unnamed tributary. As a result, staff reevaluated the receiving stream characteristics and used the new data to determine new ammonia water quality criteria, new wasteload allocations (WLAs) and new ammonia limits for both flow tiers (**Attachment 9**). DEQ guidance suggests using a sole data point of 9.0 mg/L to ensure the evaluation adequately addresses the potential for ammonia to be present in a discharge containing domestic sewage. A monthly and weekly average of 10 mg/L for ammonia is proposed for the 0.006 MGD facility and 7.2 mg/L for the 0.010 MGD facility.

It is generally assumed that ammonia is twice (2X) that of total Kjeldahl nitrogen. As indicated in the stream model, the proposed TKN limit of 5 mg/L would not violate the water quality standards of the receiving waters. Consequently the calculated ammonia limitation of 10 mg/L confirms this assumption.

It should be noted that the Environmental Protection Agency (EPA) finalized new, more stringent ammonia criteria in August 2013; possibly resulting in significant reductions in ammonia effluent limitations. It is staff's best professional judgement that incorporation of these criteria into the Virginia Water Quality Standards is forthcoming. This and many other facilities may be required to comply with these new criteria during their next respective permit terms.

2) Total Residual Chlorine (TRC)

Chlorine is utilized for disinfection and is potentially in the discharge. Staff calculated WLAs for TRC using current critical flows and the mixing allowance, as applicable. In accordance with current DEQ guidance, staff employed a default data point of 0.2 mg/L and the calculated WLAs to derive limits.

A monthly average of 0.020 mg/L and a weekly average limit of 0.025 mg/L are proposed for the 0.006 MGD facility while a monthly average of 0.016 mg/L and a weekly average limit of 0.020 mg/L are proposed for the 0.010 MGD facility.

TRC limitation derivations for both flow tiers are located in **Attachment 10**.

3) Metals/Organics

It is staff's best professional judgement that given the wastewater sources, limitations are not warranted at this time.

d. Effluent Limitations and Monitoring, Outfall 001 – Conventional and Non-Conventional Pollutants

No changes to dissolved oxygen (D.O.) and pH limitations are proposed.

Dissolved oxygen and cBOD<sub>5</sub> limitations at both flow tiers are based on the stream modeling conducted in June 2015 for this modification (**Attachment 11a** and **11b**) and are set to ensure that Water Quality Standards are not violated.

It is staff's best professional judgement that the cBOD<sub>5</sub> limitations developed in the stream model be proposed in lieu of BOD<sub>5</sub>. BOD<sub>5</sub> is not truly reflective of effluent quality from a nitrifying wastewater treatment plant; recall that BOD is the sum of cBOD and nBOD or a measurement of oxygen consumption from organic and inorganic (ammonia) contaminants in the wastewater. If a treatment plant is required to limit its ammonia, then only the oxygen demand from the organic portion would be of concern as the oxygen depletion caused by the ammonia has already been controlled via the limit. cBOD<sub>5</sub> measures just the oxygen demand exerted by organic (carbonaceous) compounds, excluding the oxygen demand exerted by the nitrogenous compounds. The nitrifying organisms are inhibited from using oxygen by the addition of a nitrification inhibitor to the samples; thus, measuring the depletion of dissolved oxygen within the effluent in which the contribution from nitrogenous bacteria is suppressed. Results attained would provide necessary data regarding potential oxygen demand from organic sources that could cause or contribute to water quality degradation.

It is staff's practice to equate the total suspended solids limits with the cBOD<sub>5</sub> limits since the two pollutants are closely related in terms of treatment of domestic sewage.

pH limitations are set at the water quality criteria.

*E. coli* limitations were not included during this modification. Wasteload allocations (WLAs) under the Poni River TMDL should be complete sometime in 2016; therefore, limitations will be included in the 2017 reissuance to ensure that the facility is in compliance with this TMDL and its WLA.

e. Effluent Limitations and Monitoring Summary

The effluent limitations are presented in Section 19. Limits were established for pH, dissolved oxygen (D.O.), total suspended solids (TSS), carbonaceous-biochemical oxygen demand-5 day (cBOD<sub>5</sub>), ammonia as N and total residual chlorine.

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The limit for total suspended solids is based on Best Professional Judgment.

The mass loading (kg/d) for monthly and weekly averages were calculated by multiplying the concentration values (mg/L), with the flow values (in MGD) and then a conversion factor of 3.785.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

The VPDES Permit Regulation at 9VAC25-31-30 and 40 CFR Part 133 require that the facility achieve at least 85% removal for cBOD and TSS (or 65% for equivalent to secondary). The limits in this permit are water quality-based effluent limits and result in greater than 85% removal.

**18. Antibacksliding:**

The backsliding proposed with this reissuance conforms to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, 9VAC25-31-220.L. and 40 CFR 122.44. The proposed limitations are based on substantial alterations to the permitted facility. The relocation of the final effluent discharge point warranted a reevaluation of the previous permit limitations based on the significant characteristic differences in this portion of the receiving stream.

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## 19.a. Effluent Limitations/Monitoring Requirements:

Design flow is 0.006 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the issuance of the CTO for the 0.010 MGD facility or the permit expiration date, whichever comes first.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
		Monthly Average		Weekly Average		Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL		NA		NA	NL	1/D	Estimate
pH	3	NA		NA		6.0 S.U.	9.0 S.U.	1/D	Grab
cBOD <sub>5</sub>	3,5	20 mg/L	0.45kg/day	30 mg/L	0.68 kg/day	NA	NA	1/M	Grab
Total Suspended Solids (TSS)	2	20 mg/L	0.45 kg/day	30 mg/L	0.68 kg/day	NA	NA	1/M	Grab
Dissolved Oxygen (DO)	3,5	NA		NA		6.0 mg/L	NA	1/D	Grab
Ammonia, as N	3,5	10 mg/L		10 mg/L		NA	NA	1/M	Grab
Total Residual Chlorine (after contact tank)	4	NA		NA		1.0 mg/L	NA	1/D	Grab
Total Residual Chlorine (after dechlorination)	3	0.020 mg/L		0.025 mg/L		NA	NA	1/D	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards
4. DEQ Disinfection Guidance
5. Stream Model – Attachment 11a

MGD = Million gallons per day.  
NA = Not applicable.  
NL = No limit; monitor and report.  
S.U. = Standard units.

1/D = Once every day.  
1/M = Once every month.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15 minutes.

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## 19.b. Effluent Limitations/Monitoring Requirements:

Design flow is 0.010 MGD.

Effective Dates: During the period beginning with the issuance of the CTO for the 0.010 MGD facility and lasting until the permit expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS			
		Monthly Average		Weekly Average		Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL		NA		NA	NL	1/D	Estimate
pH	3	NA		NA		6.0 S.U.	9.0 S.U.	1/D	Grab
cBOD <sub>5</sub>	3,5	20 mg/L	0.76kg/day	30 mg/L	1.1 kg/day	NA	NA	1/M	Grab
Total Suspended Solids (TSS)	2	20 mg/L	0.76 kg/day	30 mg/L	1.1 kg/day	NA	NA	1/M	Grab
Dissolved Oxygen (DO)	3,5	NA		NA		6.0 mg/L	NA	1/D	Grab
Ammonia, as N	3,5	7.2 mg/L		7.2 mg/L		NA	NA	1/M	Grab
Total Residual Chlorine (after contact tank)	4	NA		NA		1.0 mg/L	NA	1/D	Grab
Total Residual Chlorine (after dechlorination)	3	0.016 mg/L		0.020 mg/L		NA	NA	1/D	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards
4. DEQ Disinfection Guidance
5. Stream Model – Attachment 11b

MGD = Million gallons per day.  
NA = Not applicable.  
NL = No limit; monitor and report.  
S.U. = Standard units.

1/D = Once every day.  
1/M = Once every month.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15 minutes.

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**20. Other Permit Requirements:**

Part I.B. of the permit contains additional chlorine monitoring requirements, quantification levels and compliance reporting instructions

These additional chlorine requirements are necessary per the Sewage Collection and Treatment Regulations at 9VAC25-790 and by the Water Quality Standards at 9VAC25-260-170. Minimum chlorine residual must be maintained at the exit of the chlorine contact tank to assure adequate disinfection. No more than 10% of the monthly test results for TRC at the exit of the chlorine contact tank shall be  $< 1.0$  mg/L with any TRC  $< 0.6$  mg/L considered a system failure. *E. coli* limits are defined in this section as well as monitoring requirements to take effect should an alternate means of disinfection be used.

9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an instream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

**21. Other Special Conditions:**

- a. 95% Capacity Reopener. The VPDES Permit Regulation at 9VAC25-31-200.B.4 requires all POTWs and PVOTWs develop and submit a plan of action to DEQ when the monthly average influent flow to their sewage treatment plant reaches 95% or more of the design capacity authorized in the permit for each month of any three consecutive month period. This facility is a PVOTW.
- b. Indirect Dischargers. Required by VPDES Permit Regulation, 9VAC25-31-200.B.1 and B.2 for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.
- c. O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9VAC25-790; VPDES Permit Regulation, 9VAC25-31-190.E. The permittee shall maintain a current Operations and Maintenance (O&M) Manual. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M Manual available to Department personnel for review upon request. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- d. CTC, CTO Requirement. The Code of Virginia § 62.1-44.19; Sewage Collection and Treatment Regulations, 9VAC25-790 requires that all treatment works treating wastewater obtain a Certificate to Construct (CTC) prior to commencing construction and to obtain a Certificate to Operate (CTO) prior to commencing operation of the treatment works.
- e. Licensed Operator Requirement. The Code of Virginia at §54.1-2300 et seq. and the VPDES Permit Regulation at 9VAC25-31-200.C., and by the Board for Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals Regulations (18VAC160-20-10 et seq.) requires licensure of operators. This facility requires a Class IV operator.
- f. Reliability Class. The Sewage Collection and Treatment Regulations at 9VAC25-790 require sewage treatment works to achieve a certain level of reliability in order to protect water quality and public health consequences in the event of component or system failure. Reliability means a measure of the ability of the treatment works to perform its designated function without failure or interruption of service. The facility is required to meet a reliability Class of II.
- g. Sludge Reopener. The VPDES Permit Regulation at 9VAC25-31-220.C. requires all permits issued to treatment works treating domestic sewage (including sludge-only facilities) include a reopener clause allowing incorporation of any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the CWA. The facility includes a sewage treatment works.
- h. Sludge Use and Disposal. The VPDES Permit Regulation at 9VAC25-31-100.P; 220.B.2, and 420 through 720 and 40 CFR Part 503 require all treatment works treating domestic sewage to submit information on their sludge use and disposal practices and to meet specified standards for sludge use and disposal. The facility includes a treatment works treating domestic sewage.

- i. Total Maximum Daily Load (TMDL) Reopener. Section 303(d) of the Clean Water Act requires that Total Maximum Daily Loads (TMDLs) be developed for streams listed as impaired. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL approved for the receiving stream. The reopener recognizes that, according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan or other wasteload allocation prepared under section 303 of the Act.

**22. Permit Section Part II.**

Required by VPDES Regulation 9VAC25-31-190, Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

**23. Changes to the Permit from the Previously Issued Permit:**

a. Special Conditions:

Not Applicable.

b. Monitoring and Effluent Limitations:

- Total Kjeldahl nitrogen monitoring and reporting has been replaced with ammonia, as N.
- Total phosphorus limitations were removed during this modification due to the change in stream characteristics; current swamp like conditions to a free flowing portion of the receiving stream. In addition, this facility is considered aggregated with all other nonsignificant dischargers within this watershed under the Chesapeake Bay TMDL nutrient General Permit.
- The limitations for total suspended solids, carbonaceous-biochemical oxygen demand-5 day and total residual chlorine have been changed to reflect the discharge point relocation to a free flowing stream that could be modeled.

c. Other:

- The rivermile was updated with this modification due to the relocation of the final discharge point on the unnamed tributary of the Ni River.
- The critical flows for the receiving stream were reevaluated based on the free flowing portion on the unnamed tributary.

**24. Variances/Alternate Limits or Conditions:**

Not Applicable.

(Remainder of page intentionally left blank)

# VPDES PERMIT PROGRAM FACT SHEET

VA0091014  
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## 25. Public Notice Information:

First Public Notice Date: 27 August 2015      Second Public Notice Date: 3 September 2015

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected and copied by contacting the: DEQ Northern Regional Office; 13901 Crown Court; Woodbridge, VA 22193; Telephone No. 703-583-3873, [Douglas.Frasier@deq.virginia.gov](mailto:Douglas.Frasier@deq.virginia.gov). See **Attachment 12** for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

## 26. Additional Comments:

Previous Board Action(s): This facility was referred to enforcement and entered a Consent Special Order effective 1 July 2003; amended 27 September 2010 and terminated on 12 May 2013. The reasons for the referral were based on continued effluent violations. The permittee was required to submit plans and specifications which included the replacement of the lagoon system with a treatment plant capable of higher treatment. The permittee opted to replace the lagoon system with the present day Multi-Flo system. The September 27<sup>th</sup> amendment dealt with inflow and infiltration issues within the collection system.

The facility was referred to Enforcement in November 2014 for effluent limitation exceedances. Further action by DEQ-NRO Enforcement staff is currently pending at the time of this drafting of the Fact Sheet.

It should be noted that Spotsylvania County's long range planning includes extending public sewer; which would necessitate transecting the campground property. The timeframe is questionable and probably is years out; however, the permittee's goal is secure connection to this sewer line and close out the existing onsite treatment system.

Staff Comments: None.

State/Federal Agency Comments: No comments were received.

Public Comments: No comments were received during the public notice.

Owner Comments: No comments.

# List of Attachments

## Table of Contents

Dominion Campground, Inc.  
VA0091014  
2015 Modification

Attachment 1	Flow Frequency Determination
Attachment 2	Facility Schematic/Diagram
Attachment 3	Topographic Map
Attachment 4	Site Inspection
Attachment 5	Planning Statement
Attachment 6a	Water Quality Criteria / Wasteload Allocation Analysis for 0.006 MGD Facility
Attachment 6b	Water Quality Criteria / Wasteload Allocation Analysis for 0.010 MGD Facility
Attachment 7	May 2009 – February 2012 Effluent Data
Attachment 8a	Mixing Analysis for 0.006 MGD Facility
Attachment 8b	Mixing Analysis for 0.010 MGD Facility
Attachment 9	Ammonia Limitation Derivations for the 0.006 MGD and 0.010 MGD Facility
Attachment 10	Chlorine Limitation Derivations for the 0.006 MGD and 0.010 MGD Facility
Attachment 11a	Stream Model for the 0.006 MGD Facility
Attachment 11b	Stream Model for the 0.010 MGD Facility
Attachment 12	Public Notice

## ATTACHMENT 1

### Flow Frequency Determination

# MEMORANDUM

## VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

### NORTHERN REGIONAL OFFICE

13901 Crown Court

Woodbridge, VA 22193

TO: VPDES Issuance File VA0091014

DATE: 12 June 2015

FROM: Douglas Frasier

SUBJECT: Flow Frequency Determination of VPDES Permit No. VA0091014  
Dominion Campground

The Dominion Campground has proposed relocating the discharge point to the free flowing section of the unnamed tributary to the Ni River. Stream flow frequencies are required at this site for use in the development of effluent limitations for this VPDES permit.

There is a Gage Site on the Po River, near Spotsylvania, Virginia (#01673800). The referenced gaging station has a drainage area of 77.4 square miles. The Northern Regional Office (NRO) Water Resource Planners ascertained that the drainage area above the Outfall for Dominion Campground is 4.39 square miles.

The flow frequencies shall be determined using values at the aforementioned gage and adjusting them by proportional drainage areas.

#### Po River, near Spotsylvania (#01673800)

Drainage area	=	77.4 sq. mi.
1Q10	=	0.12 MGD
7Q10	=	0.17 MGD
30Q5	=	0.63 MGD
30Q10	=	0.26 MGD
High flow 30Q10	=	12 MGD
High flow 1Q10	=	4.3 MGD
High flow 7Q10	=	6.0 MGD

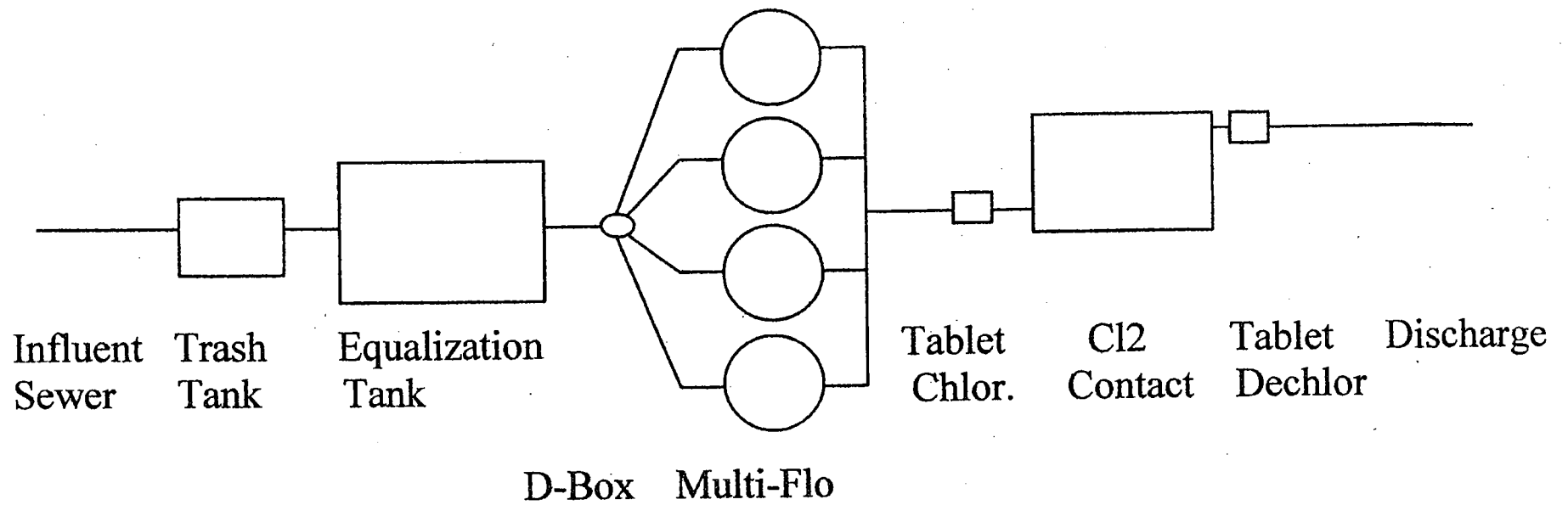
#### Ni River, UT at Outfall 001

Drainage area	=	4.39 sq. mi.
1Q10	=	0.007 MGD
7Q10	=	0.010 MGD
30Q5	=	0.036 MGD
30Q10	=	0.015 MGD
High flow 30Q10	=	0.68 MGD
High flow 1Q10	=	0.24 MGD
High flow 7Q10	=	0.34 MGD

The high flow months are December - May

## ATTACHMENT 2

### Facility Schematic/Diagram



SCHEMATIC OF WASTEWATER TREATMENT FACILITIES

## ATTACHMENT 3

### Topographic Map



## ATTACHMENT 4

### Site Inspection Report



# COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

Douglas W. Domenech  
Secretary of Natural Resources

13901 Crown Court, Woodbridge, Virginia 22193  
(703) 583-3800 Fax (703) 583-3821  
[www.deq.virginia.gov](http://www.deq.virginia.gov)

David K. Paylor  
Director

Thomas A. Fahs  
Regional Director

August 30, 2010

Ms. Susan Hart, President  
Dominion Campground, Inc.  
7400 Brookside Lane  
Fredericksburg, VA 22408

Re: **Dominion Campground Sewage Treatment Plant Inspection Report,  
Permit VA0091014**

Dear Ms. Hart:

Attached is a copy of the Site Inspection Report generated from the Site Inspection conducted at the Dominion Campground Sewage Treatment Plant (STP) on July 20, 2010.

**A written response concerning the items listed in the Required Corrective Action Section is due to this office by September 30, 2010.** Included in this response should be a plan of action and timetable for resolving these compliance issues, if they have not already been addressed. Your response may be sent either via the US Postal Service or electronically, via E-mail. DEQ recommends sending electronic responses as an Acrobat PDF or in a Word-compatible, write-protected format. Additional inspections may be conducted to confirm the facility is in compliance with permit requirements.

If you have any questions or comments concerning this report, please feel free to contact me at the Northern Regional Office at (703) 583-3909 or by e-mail at [Rebecca.Johnson@deq.virginia.gov](mailto:Rebecca.Johnson@deq.virginia.gov).

Sincerely,

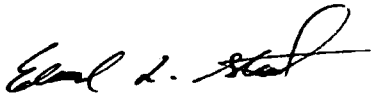
A handwritten signature in cursive script that reads "Rebecca J. Johnson".

Rebecca Johnson  
Environmental Specialist II

cc: Permits / DMR File  
Electronic Copy: Compliance Manager; Compliance Auditor  
OWCP – Steve Stell  
Doug Crooks - Dabney & Crooks (E-mail)

Virginia Department of Environmental Quality  
Northern Regional Office

RECON INSPECTION REPORT

<b>FACILITY NAME:</b> Dominion KOA Campground STP		<b>INSPECTION DATE:</b> July 20, 2010		
		<b>INSPECTOR</b> Rebecca Johnson		
<b>PERMIT No.:</b> VA0091014		<b>REPORT DATE:</b> August 30, 2010		
<b>TYPE OF FACILITY:</b> <input checked="" type="checkbox"/> Municipal <input type="checkbox"/> Major <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Federal <input type="checkbox"/> Small Minor <input type="checkbox"/> HP <input type="checkbox"/> LP	<b>TIME OF INSPECTION:</b>		Arrival 1100	Departure 1140
	<b>TOTAL TIME SPENT (including prep &amp; travel)</b>		9 Hours	
	<b>PHOTOGRAPHS:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>UNANNOUNCED INSPECTION?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>REVIEWED BY / Date:</b>  8/27/10				
<b>PRESENT DURING INSPECTION:</b>		Ms. Rebecca Johnson and Mr. Douglas Fraiser-DEQ Mr. Ron Hart- Owner		

**INSPECTION OVERVIEW AND CONDITION OF TREATMENT UNITS**

- Mr. Fraiser and I arrived onsite @ 1100.
- Upon arrival the weather conditions were humid, hot and cloudy. The temperature was in the low 90's.
- DEQ staff was greeted by Mr. Hart and explained the purpose for this visit.
- The facility is currently in the process of a lagoon closure. Mr. Hart was dewatering and filling the lagoon when Mr. Fraiser and I arrived onsite.
- Mr. Hart explained his plans to us for the lagoon closure:
  1. Dewater the lagoon
  2. Lime the edges of the lagoon
  3. Fill in the lagoon with dirt
- There was a solid layer of duckweed on the surface of the lagoon.
- There was approximately 2,000 lbs of lime covered by a tarp onsite for the liming process.
- Mr. Fraiser and I walked through the facility and noted a septic, rotten eggs smell.
- There were dead frogs and solids in the chlorine contact tank and dechlorination unit.
- The post aeration was covered in white frothy foam.
- I informed Mr. Hart of the solids in the chlorine contact tank and he said he would have the solids pumped out of the chlorine contact tank.
- Mr. Fraiser and I left the facility at 11:40 a.m.
- Photos from this inspection can be located on the U drive at Photos – Water Facilities – Dominion KOA Campground – 07-20-10

### EFFLUENT FIELD DATA: Samples Not Collected

Flow	MGD	Dissolved Oxygen	mg/L	TRC (Contact Tank)	mg/L
pH	S.U.	Temperature	°C	TRC (Final Effluent)	mg/L
Was a Sampling Inspection conducted? <input type="checkbox"/> Yes (see Sampling Inspection Report) <input checked="" type="checkbox"/> No					

### CONDITION OF OUTFALL AND EFFLUENT CHARACTERISTICS:

1. Type of outfall:	<input checked="" type="checkbox"/> Shore based	<input type="checkbox"/> Submerged	Diffuser?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
2. Are the outfall and supporting structures in good condition?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
3. Final Effluent (evidence of following problems):	<input type="checkbox"/> Sludge bar <input type="checkbox"/> Grease <input checked="" type="checkbox"/> Turbid effluent <input type="checkbox"/> Visible foam <input checked="" type="checkbox"/> Unusual color <input type="checkbox"/> Oil sheen				
4. Is there a visible effluent plume in the receiving stream?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
5. Receiving stream:	<input checked="" type="checkbox"/> No observed problems <input checked="" type="checkbox"/> Indication of problems (explain below)				
<u>Comments:</u>					
3. The final effluent was turbid and there were solids along the base of the outfall discharge pipe. <b>Picture 6</b>					

### REQUIRED CORRECTIVE ACTIONS:

1. Immediately remove the solids from the chlorine contact tank, dechlorination unit and post aeration unit.
2. Report unauthorized discharges within 24 hours of the event and submit a letter of explanation within five days of the unauthorized discharge.

### NOTES and COMMENTS:

<p>1. As stated in Permit No. VA0091014 Part II, Page 2, Section G: "Reports of Unauthorized Discharges. Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F.; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F., shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge."</p> <p>The unusual discharge event was discovered by the DEQ Staff on July 20, 2010 and notification and a report has not been received by the DEQ-NRO as of August 30, 2010.</p>
--



04/21/2015 08:40



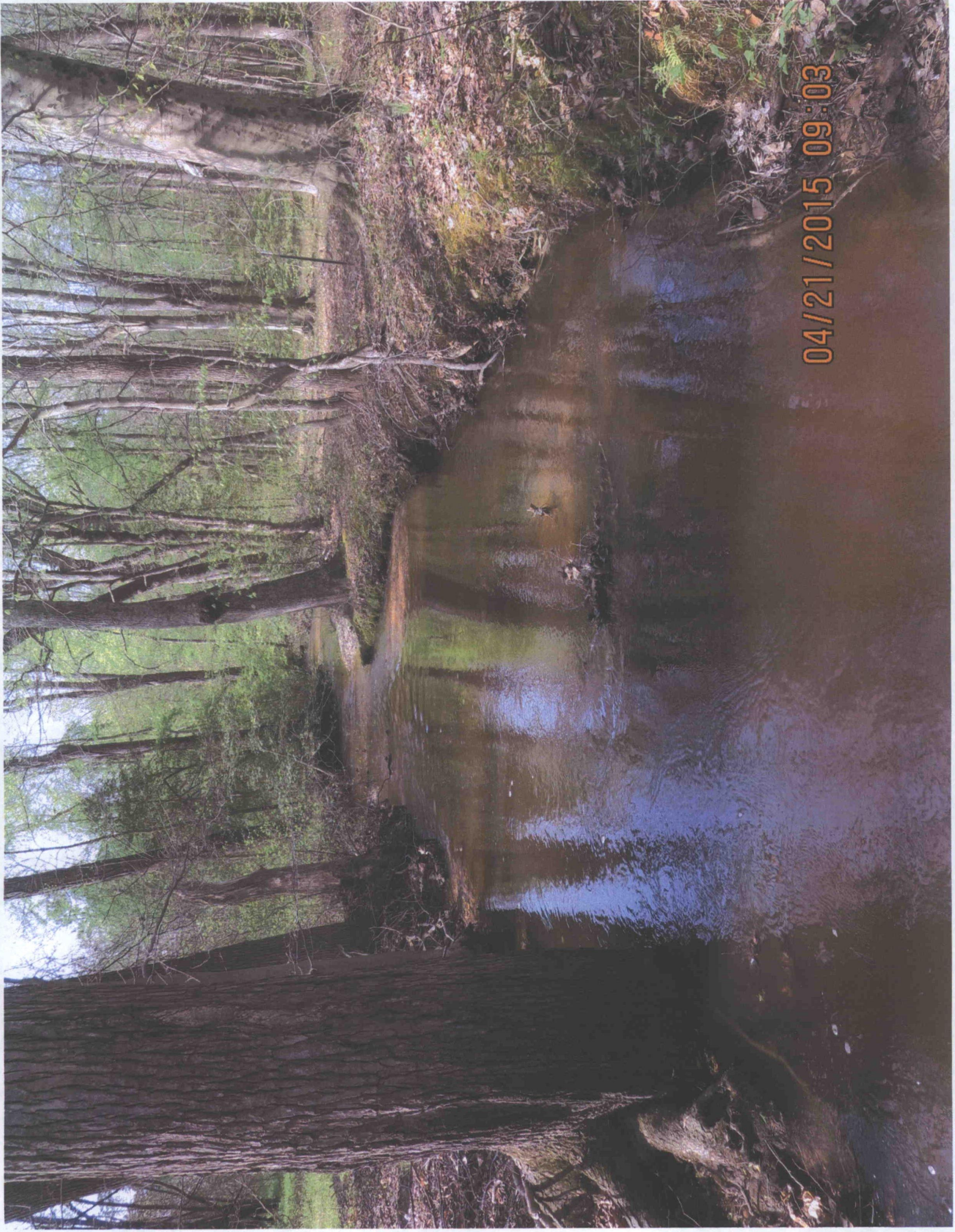
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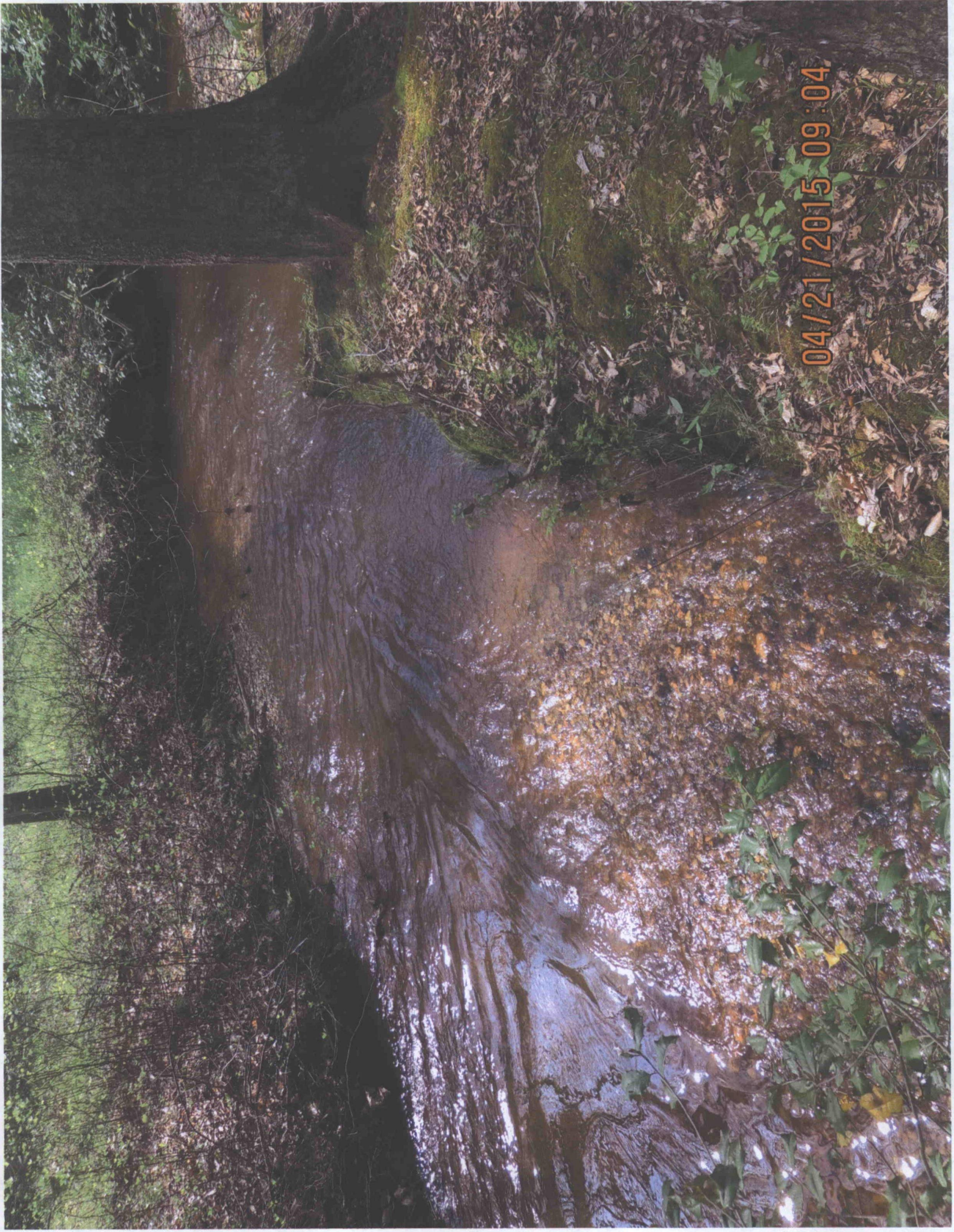
04/21/2015 08:42



04/21/2015 09:03



04/21/2015 09:03



04/21/2015 09:04

## ATTACHMENT 5

### Planning Statement

To: Douglas Frasier  
From: Jennifer Carlson

Date: July 14 2015  
Subject: Planning Statement for Dominion Campground, Inc. (modification)  
Permit Number: VA0091014

**Information for Outfall 001:**

Discharge Type: privately owned WWTP  
Discharge Flow: 0.006 MGD  
Receiving Stream: Ni River, UT  
Latitude / Longitude: 38° 09' 40.6" / -77° 28' 35.2"  
Rivermile: 0.73  
Streamcode: 8-XHK  
Waterbody: VAN-F15R  
Water Quality Standards: Class III, Section 3  
Drainage Area: 4.39 mi<sup>2</sup>

1. Please provide water quality monitoring information for the receiving stream segment. If there is not monitoring information for the receiving stream segment, please provide information on the nearest downstream monitoring station, including how far downstream the monitoring station is from the outfall.

This facility discharges into an unnamed tributary to the Ni River. This tributary has not been monitored or assessed by DEQ. The nearest downstream DEQ monitoring station is 8-PNI002.43, located on the Poni River at the Rt. 606 bridge crossing, approximately 3.2 miles downstream of Outfall 001. The following is the summary for this segment of Poni River, as taken from the 2012 Integrated Report:

*Class III, Section 3.*

*DEQ monitoring stations location in this segment of the Ni River:*

- *Ambient station 8-PNI002.43, at Route 606.*

*E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. The wildlife and aquatic life uses are considered fully supporting. The fish consumption use was not assessed.*

2. Does this facility discharge to a stream segment on the 303(d) list? If yes, please fill out Table A.

No.

3. Are there any downstream 303(d) listed impairments that are relevant to this discharge? If yes, please fill out Table B.

Yes.

**Table B. Information on Downstream 303(d) Impairments and TMDLs**

Waterbody Name	Impaired Use	Cause	Distance From Outfall (miles)	TMDL completed	WLA	Basis for WLA	TMDL Schedule
<b><i>Impairment Information in the 2012 Integrated Report</i></b>							
Ni River	Aquatic Life	Benthic Macroinvertebrates	0.73	No	--	--	2022
Poni River	Recreation	<i>E. coli</i>	2.5	In development	TBD	--	2016
Mattaponi River	Fish Consumption	PCBs	~50	No	--	--	2022
		Mercury		No	--	--	2018

**4. Is there monitoring or other conditions that Planning/Assessment needs in the permit?**

Ni River, which is located less than one mile downstream from Outfall 001, is listed as impaired for benthic macroinvertebrates with no TMDL in place. Because this municipal facility is located within five miles upstream from a benthic impairment, it is a candidate for nutrient monitoring. DEQ staff requests the facility conduct quarterly nutrient monitoring, specifically for total phosphorus, nitrate, nitrite, ammonia, and TKN.

The Mattaponi River is listed with a PCB impairment, approximately 50 miles downstream of this facility. In support for the PCB TMDL that is scheduled for development by 2022, this facility is a candidate for low-level PCB monitoring, based upon its designation as a minor municipal facility. Low-level PCB analysis uses EPA Method 1668, which is capable of detecting low-level concentrations for all 209 PCB congeners. DEQ staff has concluded that low-level PCB monitoring is not warranted for this facility, as it is a small wastewater treatment facility (<0.1 MGD) and is not expected to be a source of PCBs. Additionally, fish tissue samples have been collected in the Mattaponi River in 2008 between the discharge location and the impaired area. Results from this sampling show no exceedances of the fish tissue criterion for PCBs. Based upon this information, this facility will not be requested to monitor for low-level PCBs.

There is a completed downstream TMDL for the aquatic life use impairment for the Chesapeake Bay. However, the Bay TMDL and the WLAs contained within the TMDL are not addressed in this planning statement.

**5. Fact Sheet Requirements – Please provide information regarding any drinking water intakes located within a 5 mile radius of the discharge point.**

There are no public water supply intakes located within 5 miles of this discharge.

## ATTACHMENT 6a

### Water Quality Criteria / Wasteload Allocation Analysis for 0.006 MGD Facility

# FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Dominion Campground 0.006 MGD

Permit No.: VA0091014

Receiving Stream: Ni River, UT

Version: OWP Guidance Memo 00-2011 (8/24/00)

## Stream Information

Mean Hardness (as CaCO<sub>3</sub>) = 50 mg/L  
 90% Temperature (Annual) = 25 deg C  
 90% Temperature (Wet season) = 15 deg C  
 90% Maximum pH = 7.9 SU  
 10% Maximum pH = 7.5 SU  
 Tier Designation (1 or 2) = 1  
 Public Water Supply (PWS) Y/N? = n  
 Trout Present Y/N? = n  
 Early Life Stages Present Y/N? = y

## Stream Flows

1Q10 (Annual) = 0.007 MGD  
 7Q10 (Annual) = 0.01 MGD  
 30Q10 (Annual) = 0.015 MGD  
 1Q10 (Wet season) = 0.24 MGD  
 30Q10 (Wet season) = 0.68 MGD  
 30Q5 = 0.036 MGD  
 Harmonic Mean = MGD

## Mixing Information

Annual - 1Q10 Mix = 100 %  
 - 7Q10 Mix = 100 %  
 - 30Q10 Mix = 100 %  
 Wet Season - 1Q10 Mix = 100 %  
 - 30Q10 Mix = 100 %

## Effluent Information

Mean Hardness (as CaCO<sub>3</sub>) = 50 mg/L  
 90% Temp (Annual) = 25 deg C  
 90% Temp (Wet season) = 15 deg C  
 90% Maximum pH = 7.9 SU  
 10% Maximum pH = 7.5 SU  
 Discharge Flow = 0.006 MGD

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	na	9.9E+02	--	--	na	6.9E+03	--	--	--	--	--	--	--	--	--	--	na	6.9E+03
Acrolein	0	--	--	na	9.3E+00	--	--	na	6.5E+01	--	--	--	--	--	--	--	--	--	--	na	6.5E+01
Acrylonitrile <sup>c</sup>	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Aldrin <sup>c</sup>	0	3.0E+00	--	na	5.0E-04	6.5E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	6.5E+00	--	na	5.0E-04
Ammonia-N (mg/l) (Yearly)	0	1.01E+01	1.42E+00	na	--	2.20E+01	4.98E+00	na	--	--	--	--	--	--	--	--	--	2.20E+01	4.98E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	1.01E+01	2.71E+00	na	--	4.15E+02	3.10E+02	na	--	--	--	--	--	--	--	--	--	4.15E+02	3.10E+02	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	2.8E+05	--	--	--	--	--	--	--	--	--	--	na	2.8E+05
Antimony	0	--	--	na	6.4E+02	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	7.4E+02	4.0E+02	na	--	--	--	--	--	--	--	--	--	7.4E+02	4.0E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene <sup>c</sup>	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Benzidine <sup>c</sup>	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	2.0E-03
Benzo (a) anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (b) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (k) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (a) pyrene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Bis(2-Chloroethyl) Ether <sup>c</sup>	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	5.3E+00
Bis(2-Chloroisopropyl) Ether	0	--	--	na	6.5E+04	--	--	na	4.6E+05	--	--	--	--	--	--	--	--	--	--	na	4.6E+05
Bis 2-Ethylhexyl Phthalate <sup>c</sup>	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Bromoform <sup>c</sup>	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.3E+04	--	--	--	--	--	--	--	--	--	--	na	1.3E+04
Cadmium	0	1.8E+00	6.6E-01	na	--	3.9E+00	1.8E+00	na	--	--	--	--	--	--	--	--	--	3.9E+00	1.8E+00	na	--
Carbon Tetrachloride <sup>c</sup>	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	1.6E+01
Chlordane <sup>c</sup>	0	2.4E+00	4.3E-03	na	8.1E-03	5.2E+00	1.1E-02	na	8.1E-03	--	--	--	--	--	--	--	--	5.2E+00	1.1E-02	na	8.1E-03
Chloride	0	8.6E+05	2.3E+05	na	--	1.9E+06	6.1E+05	na	--	--	--	--	--	--	--	--	--	1.9E+06	6.1E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	4.1E+01	2.9E+01	na	--	--	--	--	--	--	--	--	--	4.1E+01	2.9E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane <sup>c</sup>	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	7.7E+04	--	--	--	--	--	--	--	--	--	--	na	7.7E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	1.8E-01	1.1E-01	na	--	--	--	--	--	--	--	--	--	1.8E-01	1.1E-01	na	--
Chromium III	0	3.2E+02	4.2E+01	na	--	7.0E+02	1.1E+02	na	--	--	--	--	--	--	--	--	--	7.0E+02	1.1E+02	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	3.5E+01	2.9E+01	na	--	--	--	--	--	--	--	--	--	3.5E+01	2.9E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene <sup>c</sup>	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	7.0E+00	5.0E+00	na	--	1.5E+01	1.3E+01	na	--	--	--	--	--	--	--	--	--	1.5E+01	1.3E+01	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	4.8E+01	1.4E+01	na	1.1E+05	--	--	--	--	--	--	--	--	4.8E+01	1.4E+01	na	1.1E+05
DDD <sup>c</sup>	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE <sup>c</sup>	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT <sup>c</sup>	0	1.1E+00	1.0E-03	na	2.2E-03	2.4E+00	2.7E-03	na	2.2E-03	--	--	--	--	--	--	--	--	2.4E+00	2.7E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	2.7E-01	na	--	--	--	--	--	--	--	--	--	--	2.7E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	3.7E-01	4.5E-01	na	--	--	--	--	--	--	--	--	--	3.7E-01	4.5E-01	na	--
Dibenz(a,h)anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	9.1E+03	--	--	--	--	--	--	--	--	--	--	na	9.1E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	6.7E+03	--	--	--	--	--	--	--	--	--	--	na	6.7E+03
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
3,3-Dichlorobenzidine <sup>c</sup>	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane <sup>c</sup>	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane <sup>c</sup>	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	5.0E+04	--	--	--	--	--	--	--	--	--	--	na	5.0E+04
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	7.0E+04	--	--	--	--	--	--	--	--	--	--	na	7.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.0E+03	--	--	--	--	--	--	--	--	--	--	na	2.0E+03
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane <sup>c</sup>	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene <sup>c</sup>	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin <sup>c</sup>	0	2.4E-01	5.6E-02	na	5.4E-04	5.2E-01	1.5E-01	na	5.4E-04	--	--	--	--	--	--	--	--	5.2E-01	1.5E-01	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	3.1E+05	--	--	--	--	--	--	--	--	--	--	na	3.1E+05
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	7.7E+06	--	--	--	--	--	--	--	--	--	--	na	7.7E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	3.2E+04	--	--	--	--	--	--	--	--	--	--	na	3.2E+04
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	3.7E+04	--	--	--	--	--	--	--	--	--	--	na	3.7E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.0E+03	--	--	--	--	--	--	--	--	--	--	na	2.0E+03
2,4-Dinitrotoluene <sup>c</sup>	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8- tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	3.6E-07	--	--	--	--	--	--	--	--	--	--	na	3.6E-07
1,2-Diphenylhydrazine <sup>c</sup>	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	4.8E-01	1.5E-01	na	6.2E+02	--	--	--	--	--	--	--	--	4.8E-01	1.5E-01	na	6.2E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	4.8E-01	1.5E-01	na	6.2E+02	--	--	--	--	--	--	--	--	4.8E-01	1.5E-01	na	6.2E+02
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	4.8E-01	1.5E-01	--	--	--	--	--	--	--	--	--	--	4.8E-01	1.5E-01	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	6.2E+02	--	--	--	--	--	--	--	--	--	--	na	6.2E+02
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	1.9E-01	9.6E-02	na	4.2E-01	--	--	--	--	--	--	--	--	1.9E-01	9.6E-02	na	4.2E-01
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	2.1E+00	--	--	--	--	--	--	--	--	--	--	na	2.1E+00

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	1.5E+04	--	--	--	--	--	--	--	--	--	--	na	1.5E+04
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	9.8E+02	--	--	--	--	--	--	--	--	--	--	na	9.8E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	3.7E+04	--	--	--	--	--	--	--	--	--	--	na	3.7E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	2.7E-02	na	--	--	--	--	--	--	--	--	--	--	2.7E-02	na	--
Heptachlor <sup>C</sup>	0	5.2E-01	3.8E-03	na	7.9E-04	1.1E+00	1.0E-02	na	7.9E-04	--	--	--	--	--	--	--	--	1.1E+00	1.0E-02	na	7.9E-04
Heptachlor Epoxide <sup>C</sup>	0	5.2E-01	3.8E-03	na	3.9E-04	1.1E+00	1.0E-02	na	3.9E-04	--	--	--	--	--	--	--	--	1.1E+00	1.0E-02	na	3.9E-04
Hexachlorobenzene <sup>C</sup>	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene <sup>C</sup>	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane Alpha-BHC <sup>C</sup>	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane Beta-BHC <sup>C</sup>	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane Gamma-BHC <sup>C</sup> (Lindane)	0	9.5E-01	na	na	1.8E+00	2.1E+00	--	na	1.8E+00	--	--	--	--	--	--	--	--	2.1E+00	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	7.7E+03	--	--	--	--	--	--	--	--	--	--	na	7.7E+03
Hexachloroethane <sup>C</sup>	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	5.3E+00	na	--	--	--	--	--	--	--	--	--	--	5.3E+00	na	--
Indeno (1,2,3-cd) pyrene <sup>C</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone <sup>C</sup>	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.9E+01	5.6E+00	na	--	1.1E+02	1.5E+01	na	--	--	--	--	--	--	--	--	--	1.1E+02	1.5E+01	na	--
Malathion	0	--	1.0E-01	na	--	--	2.7E-01	na	--	--	--	--	--	--	--	--	--	--	2.7E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	3.0E+00	2.1E+00	--	--	--	--	--	--	--	--	--	--	3.0E+00	2.1E+00	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
Methylene Chloride <sup>C</sup>	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	8.0E-02	na	--	--	--	--	--	--	--	--	--	--	8.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.0E+02	1.1E+01	na	4.6E+03	2.2E+02	3.0E+01	na	3.2E+04	--	--	--	--	--	--	--	--	2.2E+02	3.0E+01	na	3.2E+04
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	4.8E+03	--	--	--	--	--	--	--	--	--	--	na	4.8E+03
N-Nitrosodimethylamine <sup>C</sup>	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine <sup>C</sup>	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine <sup>C</sup>	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	6.1E+01	1.8E+01	na	--	--	--	--	--	--	--	--	--	6.1E+01	1.8E+01	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	1.4E-01	3.5E-02	na	--	--	--	--	--	--	--	--	--	1.4E-01	3.5E-02	na	--
PCB Total <sup>C</sup>	0	--	1.4E-02	na	6.4E-04	--	3.7E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	3.7E-02	na	6.4E-04
Pentachlorophenol <sup>C</sup>	0	1.4E+01	1.1E+01	na	3.0E+01	3.1E+01	2.9E+01	na	3.0E+01	--	--	--	--	--	--	--	--	3.1E+01	2.9E+01	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	6.0E+06	--	--	--	--	--	--	--	--	--	--	na	6.0E+06
Pyrene	0	--	--	na	4.0E+03	--	--	na	2.8E+04	--	--	--	--	--	--	--	--	--	--	na	2.8E+04
Radionuclides Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	4.0E+00	--	--	na	2.8E+01	--	--	--	--	--	--	--	--	--	--	na	2.8E+01
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	4.3E+01	1.3E+01	na	2.9E+04	--	--	--	--	--	--	--	--	4.3E+01	1.3E+01	na	2.9E+04
Silver	0	1.0E+00	--	na	--	2.3E+00	--	na	--	--	--	--	--	--	--	--	--	2.3E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane <sup>C</sup>	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene <sup>C</sup>	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	3.3E+00	--	--	--	--	--	--	--	--	--	--	na	3.3E+00
Toluene	0	--	--	na	6.0E+03	--	--	na	4.2E+04	--	--	--	--	--	--	--	--	--	--	na	4.2E+04
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene <sup>C</sup>	0	7.3E-01	2.0E-04	na	2.8E-03	1.6E+00	5.3E-04	na	2.8E-03	--	--	--	--	--	--	--	--	1.6E+00	5.3E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	1.0E+00	1.9E-01	na	--	--	--	--	--	--	--	--	--	1.0E+00	1.9E-01	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	4.9E+02	--	--	--	--	--	--	--	--	--	--	na	4.9E+02
1,1,2-Trichloroethane <sup>C</sup>	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene <sup>C</sup>	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol <sup>C</sup>	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride <sup>C</sup>	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
Zinc	0	6.5E+01	6.6E+01	na	2.6E+04	1.4E+02	1.8E+02	na	1.8E+05	--	--	--	--	--	--	--	--	1.4E+02	1.8E+02	na	1.8E+05

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.  
Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic  
= (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)	Note: do not use QL's lower than the minimum QL's provided in agency guidance
Antimony	4.5E+03	
Arsenic	2.4E+02	
Barium	na	
Cadmium	1.1E+00	
Chromium III	6.7E+01	
Chromium VI	1.4E+01	
Copper	6.1E+00	
Iron	na	
Lead	8.9E+00	
Manganese	na	
Mercury	1.2E+00	
Nickel	1.8E+01	
Selenium	8.0E+00	
Silver	9.1E-01	
Zinc	5.6E+01	

## ATTACHMENT 6b

### Water Quality Criteria / Wasteload Allocation Analysis for 0.010 MGD Facility

# FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Dominion Campground 0.010 MGD

Permit No.: VA0091014

Receiving Stream: Ni River, UT

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO3) =	50 mg/L	1Q10 (Annual) =	0.007 MGD	Annual - 1Q10 Mix =	100 %	Mean Hardness (as CaCO3) =	50 mg/L
90% Temperature (Annual) =	25 deg C	7Q10 (Annual) =	0.01 MGD	- 7Q10 Mix =	100 %	90% Temp (Annual) =	25 deg C
90% Temperature (Wet season) =	15 deg C	30Q10 (Annual) =	0.015 MGD	- 30Q10 Mix =	100 %	90% Temp (Wet season) =	15 deg C
90% Maximum pH =	7.9 SU	1Q10 (Wet season) =	0.24 MGD	Wet Season - 1Q10 Mix =	100 %	90% Maximum pH =	7.9 SU
10% Maximum pH =	7.5 SU	30Q10 (Wet season) =	0.68 MGD	- 30Q10 Mix =	100 %	10% Maximum pH =	7.5 SU
Tier Designation (1 or 2) =	1	30Q5 =	0.036 MGD			Discharge Flow =	0.01 MGD
Public Water Supply (PWS) Y/N? =	n	Harmonic Mean =	MGD				
Trout Present Y/N? =	n						
Early Life Stages Present Y/N? =	y						

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	na	9.9E+02	--	--	na	4.6E+03	--	--	--	--	--	--	--	--	--	--	na	4.6E+03
Acrolein	0	--	--	na	9.3E+00	--	--	na	4.3E+01	--	--	--	--	--	--	--	--	--	--	na	4.3E+01
Acrylonitrile <sup>c</sup>	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Aldrin <sup>c</sup>	0	3.0E+00	--	na	5.0E-04	5.1E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	5.1E+00	--	na	5.0E-04
Ammonia-N (mg/l) (Yearly)	0	1.01E+01	1.42E+00	na	--	1.72E+01	3.56E+00	na	--	--	--	--	--	--	--	--	--	1.72E+01	3.56E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	1.01E+01	2.71E+00	na	--	2.53E+02	1.87E+02	na	--	--	--	--	--	--	--	--	--	2.53E+02	1.87E+02	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	1.8E+05	--	--	--	--	--	--	--	--	--	--	na	1.8E+05
Antimony	0	--	--	na	6.4E+02	--	--	na	2.9E+03	--	--	--	--	--	--	--	--	--	--	na	2.9E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	5.8E+02	3.0E+02	na	--	--	--	--	--	--	--	--	--	5.8E+02	3.0E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene <sup>c</sup>	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Benzidine <sup>c</sup>	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	2.0E-03
Benzo (a) anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (b) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (k) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (a) pyrene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Bis(2-Chloroethyl) Ether <sup>c</sup>	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	5.3E+00
Bis(2-Chloroisopropyl) Ether	0	--	--	na	6.5E+04	--	--	na	3.0E+05	--	--	--	--	--	--	--	--	--	--	na	3.0E+05
Bis 2-Ethylhexyl Phthalate <sup>c</sup>	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Bromofom <sup>c</sup>	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	8.7E+03	--	--	--	--	--	--	--	--	--	--	na	8.7E+03
Cadmium	0	1.8E+00	6.6E-01	na	--	3.1E+00	1.3E+00	na	--	--	--	--	--	--	--	--	--	3.1E+00	1.3E+00	na	--
Carbon Tetrachloride <sup>c</sup>	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	1.6E+01
Chlordane <sup>c</sup>	0	2.4E+00	4.3E-03	na	8.1E-03	4.1E+00	8.6E-03	na	8.1E-03	--	--	--	--	--	--	--	--	4.1E+00	8.6E-03	na	8.1E-03
Chloride	0	8.6E+05	2.3E+05	na	--	1.5E+06	4.6E+05	na	--	--	--	--	--	--	--	--	--	1.5E+06	4.6E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	3.2E+01	2.2E+01	na	--	--	--	--	--	--	--	--	--	3.2E+01	2.2E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	7.4E+03	--	--	--	--	--	--	--	--	--	--	na	7.4E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane <sup>c</sup>	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	5.1E+04	--	--	--	--	--	--	--	--	--	--	na	5.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	7.4E+03	--	--	--	--	--	--	--	--	--	--	na	7.4E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	1.4E-01	8.2E-02	na	--	--	--	--	--	--	--	--	--	1.4E-01	8.2E-02	na	--
Chromium III	0	3.2E+02	4.2E+01	na	--	5.5E+02	8.4E+01	na	--	--	--	--	--	--	--	--	--	5.5E+02	8.4E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	2.7E+01	2.2E+01	na	--	--	--	--	--	--	--	--	--	2.7E+01	2.2E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene <sup>c</sup>	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	7.0E+00	5.0E+00	na	--	1.2E+01	9.9E+00	na	--	--	--	--	--	--	--	--	--	1.2E+01	9.9E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	3.7E+01	1.0E+01	na	7.4E+04	--	--	--	--	--	--	--	--	3.7E+01	1.0E+01	na	7.4E+04
DDD <sup>c</sup>	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE <sup>c</sup>	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT <sup>c</sup>	0	1.1E+00	1.0E-03	na	2.2E-03	1.9E+00	2.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	1.9E+00	2.0E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	2.0E-01	na	--	--	--	--	--	--	--	--	--	--	2.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	2.9E-01	3.4E-01	na	--	--	--	--	--	--	--	--	--	2.9E-01	3.4E-01	na	--
Dibenz(a,h)anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	4.4E+03	--	--	--	--	--	--	--	--	--	--	na	4.4E+03
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	8.7E+02	--	--	--	--	--	--	--	--	--	--	na	8.7E+02
3,3-Dichlorobenzidine <sup>c</sup>	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane <sup>c</sup>	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane <sup>c</sup>	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	3.3E+04	--	--	--	--	--	--	--	--	--	--	na	3.3E+04
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	4.6E+04	--	--	--	--	--	--	--	--	--	--	na	4.6E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane <sup>c</sup>	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene <sup>c</sup>	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin <sup>c</sup>	0	2.4E-01	5.6E-02	na	5.4E-04	4.1E-01	1.1E-01	na	5.4E-04	--	--	--	--	--	--	--	--	4.1E-01	1.1E-01	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	2.0E+05	--	--	--	--	--	--	--	--	--	--	na	2.0E+05
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	3.9E+03	--	--	--	--	--	--	--	--	--	--	na	3.9E+03
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	5.1E+06	--	--	--	--	--	--	--	--	--	--	na	5.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	2.4E+04	--	--	--	--	--	--	--	--	--	--	na	2.4E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
2,4-Dinitrotoluene <sup>c</sup>	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8- tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	2.3E-07	--	--	--	--	--	--	--	--	--	--	na	2.3E-07
1,2-Diphenylhydrazine <sup>c</sup>	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	3.7E-01	1.1E-01	na	4.1E+02	--	--	--	--	--	--	--	--	3.7E-01	1.1E-01	na	4.1E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	3.7E-01	1.1E-01	na	4.1E+02	--	--	--	--	--	--	--	--	3.7E-01	1.1E-01	na	4.1E+02
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	3.7E-01	1.1E-01	--	--	--	--	--	--	--	--	--	--	3.7E-01	1.1E-01	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	4.1E+02	--	--	--	--	--	--	--	--	--	--	na	4.1E+02
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	1.5E-01	7.2E-02	na	2.8E-01	--	--	--	--	--	--	--	--	1.5E-01	7.2E-02	na	2.8E-01
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	1.4E+00	--	--	--	--	--	--	--	--	--	--	na	1.4E+00

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	9.7E+03	--	--	--	--	--	--	--	--	--	--	na	9.7E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	6.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	2.4E+04	--	--	--	--	--	--	--	--	--	--	na	2.4E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	2.0E-02	na	--	--	--	--	--	--	--	--	--	--	2.0E-02	na	--
Heptachlor <sup>c</sup>	0	5.2E-01	3.8E-03	na	7.9E-04	8.8E-01	7.6E-03	na	7.9E-04	--	--	--	--	--	--	--	--	8.8E-01	7.6E-03	na	7.9E-04
Heptachlor Epoxide <sup>c</sup>	0	5.2E-01	3.8E-03	na	3.9E-04	8.8E-01	7.6E-03	na	3.9E-04	--	--	--	--	--	--	--	--	8.8E-01	7.6E-03	na	3.9E-04
Hexachlorobenzene <sup>c</sup>	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene <sup>c</sup>	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane Alpha-BHC <sup>c</sup>	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane Beta-BHC <sup>c</sup>	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane Gamma-BHC <sup>c</sup> (Lindane)	0	9.5E-01	na	na	1.8E+00	1.6E+00	--	na	1.8E+00	--	--	--	--	--	--	--	--	1.6E+00	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	5.1E+03	--	--	--	--	--	--	--	--	--	--	na	5.1E+03
Hexachloroethane <sup>c</sup>	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	4.0E+00	na	--	--	--	--	--	--	--	--	--	--	4.0E+00	na	--
Indeno (1,2,3-cd) pyrene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone <sup>c</sup>	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.9E+01	5.6E+00	na	--	8.4E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	8.4E+01	1.1E+01	na	--
Malathion	0	--	1.0E-01	na	--	--	2.0E-01	na	--	--	--	--	--	--	--	--	--	--	2.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	2.4E+00	1.5E+00	--	--	--	--	--	--	--	--	--	--	2.4E+00	1.5E+00	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	6.9E+03	--	--	--	--	--	--	--	--	--	--	na	6.9E+03
Methylene Chloride <sup>c</sup>	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	6.0E-02	na	--	--	--	--	--	--	--	--	--	--	6.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.0E+02	1.1E+01	na	4.6E+03	1.7E+02	2.3E+01	na	2.1E+04	--	--	--	--	--	--	--	--	1.7E+02	2.3E+01	na	2.1E+04
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	3.2E+03	--	--	--	--	--	--	--	--	--	--	na	3.2E+03
N-Nitrosodimethylamine <sup>c</sup>	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine <sup>c</sup>	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine <sup>c</sup>	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	4.8E+01	1.3E+01	na	--	--	--	--	--	--	--	--	--	4.8E+01	1.3E+01	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	1.1E-01	2.6E-02	na	--	--	--	--	--	--	--	--	--	1.1E-01	2.6E-02	na	--
PCB Total <sup>c</sup>	0	--	1.4E-02	na	6.4E-04	--	2.8E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	2.8E-02	na	6.4E-04
Pentachlorophenol <sup>c</sup>	0	1.4E+01	1.1E+01	na	3.0E+01	2.5E+01	2.2E+01	na	3.0E+01	--	--	--	--	--	--	--	--	2.5E+01	2.2E+01	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	4.0E+06	--	--	--	--	--	--	--	--	--	--	na	4.0E+06
Pyrene	0	--	--	na	4.0E+03	--	--	na	1.8E+04	--	--	--	--	--	--	--	--	--	--	na	1.8E+04
Radionuclides Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	4.0E+00	--	--	na	1.8E+01	--	--	--	--	--	--	--	--	--	--	na	1.8E+01
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	3.4E+01	1.0E+01	na	1.9E+04	--	--	--	--	--	--	--	--	3.4E+01	1.0E+01	na	1.9E+04
Silver	0	1.0E+00	--	na	--	1.8E+00	--	na	--	--	--	--	--	--	--	--	--	1.8E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane <sup>C</sup>	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene <sup>C</sup>	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	2.2E+00	--	--	--	--	--	--	--	--	--	--	na	2.2E+00
Toluene	0	--	--	na	6.0E+03	--	--	na	2.8E+04	--	--	--	--	--	--	--	--	--	--	na	2.8E+04
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene <sup>C</sup>	0	7.3E-01	2.0E-04	na	2.8E-03	1.2E+00	4.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	1.2E+00	4.0E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	7.8E-01	1.4E-01	na	--	--	--	--	--	--	--	--	--	7.8E-01	1.4E-01	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	3.2E+02	--	--	--	--	--	--	--	--	--	--	na	3.2E+02
1,1,2-Trichloroethane <sup>C</sup>	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene <sup>C</sup>	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol <sup>C</sup>	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride <sup>C</sup>	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
Zinc	0	6.5E+01	6.6E+01	na	2.6E+04	1.1E+02	1.3E+02	na	1.2E+05	--	--	--	--	--	--	--	--	1.1E+02	1.3E+02	na	1.2E+05

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.  
Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic  
= (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	2.9E+03
Arsenic	1.8E+02
Barium	na
Cadmium	7.9E-01
Chromium III	5.0E+01
Chromium VI	1.1E+01
Copper	4.8E+00
Iron	na
Lead	6.7E+00
Manganese	na
Mercury	9.2E-01
Nickel	1.4E+01
Selenium	6.0E+00
Silver	7.1E-01
Zinc	4.4E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

## ATTACHMENT 7

May 2009 – February 2012 Effluent Data

## DMR QA/QC

Permit #:VA0091014

Facility: Dominion Campground Incorporated

Due	Parameter Description	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
10-Jun-2009	CBOD5	2	0.23	2	0.34	NULL	*****	96	10	96	15
10-Jul-2009	CBOD5	0.45	0.23	0.45	0.34	NULL	*****	15	10	15	15
10-Aug-2009	CBOD5	2.03	0.23	2.03	0.34	NULL	*****	41.6	10	41.6	15
10-Sep-2009	CBOD5	1.29	0.23	1.29	0.34	NULL	*****	21.3	10	21.3	15
10-Oct-2009	CBOD5	0.206	0.23	0.206	0.34	NULL	*****	15.1	10	15.1	15
10-Nov-2009	CBOD5	0.077	0.23	0.077	0.34	NULL	*****	6	10	6	15
10-Dec-2009	CBOD5	0.1	0.23	0.1	0.34	NULL	*****	5	10	5	15
10-Jan-2010	CBOD5	<0.15	0.23	0.23	0.34	NULL	*****	<4.8	10	7.5	15
10-Feb-2010	CBOD5	0.14	0.23	0.14	0.34	NULL	*****	5.1	10	5.1	15
10-Mar-2010	CBOD5	0.24	0.23	0.24	0.34	NULL	*****	7	10	7	15
10-Apr-2010	CBOD5	0.04	0.23	0.04	0.34	NULL	*****	<2	10	<2	15
10-May-2010	CBOD5	<0.02	0.23	<0.02	0.34	NULL	*****	<2	10	<2	15
10-Jun-2010	CBOD5	0.04	0.23	0.04	0.34	NULL	*****	4	10	4	15
10-Jul-2010	CBOD5	0.03	0.23	0.03	0.34	NULL	*****	2.1	10	2.1	15
10-Aug-2010	CBOD5	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Sep-2010	CBOD5	0.06	0.23	0.06	0.34	NULL	*****	5	10	5	15
10-Oct-2010	CBOD5	<0.005	0.23	<0.005	0.34	NULL	*****	<2	10	<2	15
10-Nov-2010	CBOD5	0.03	0.23	0.03	0.34	NULL	*****	5	10	5	15
10-Dec-2010	CBOD5	0.02	0.23	0.02	0.34	NULL	*****	2	10	2	15
10-Jan-2011	CBOD5	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Feb-2011	CBOD5	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Mar-2011	CBOD5	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Apr-2011	CBOD5	<0.011	0.23	<0.011	0.34	NULL	*****	<2	10	<2	15
10-May-2011	CBOD5	<0.04	0.23	<0.04	0.34	NULL	*****	<2	10	<2	15
10-Jun-2011	CBOD5	0.02	0.23	0.02	0.34	NULL	*****	2	10	2	15
10-Jul-2011	CBOD5	0.03	0.23	0.03	0.34	NULL	*****	2	10	2	15
10-Aug-2011	CBOD5	0.03	0.23	0.03	0.34	NULL	*****	4	10	4	15
10-Sep-2011	CBOD5	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Oct-2011	CBOD5	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Nov-2011	CBOD5	0.09	0.23	0.09	0.34	NULL	*****	8	10	8	15
10-Dec-2011	CBOD5	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Jan-2012	CBOD5	0.023	0.23	0.023	0.34	NULL	*****	3	10	3	15
10-Feb-2012	CBOD5	0.02	0.23	0.02	0.34	NULL	*****	4	10	4	15
10-Mar-2012	CBOD5	0.036	0.23	0.036	0.34	NULL	*****	6	10	6	15
10-Jun-2009	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.8	9
10-Jul-2009	PH	NULL	*****	NULL	*****	7.4	6	NULL	*****	8.2	9
10-Aug-2009	PH	NULL	*****	NULL	*****	7.7	6	NULL	*****	7.9	9

10-Sep-2009	PH	NULL	*****	NULL	*****	7.4	6	NULL	*****	7.9	9
10-Oct-2009	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.8	9
10-Nov-2009	PH	NULL	*****	NULL	*****	7.1	6	NULL	*****	7.6	9
10-Dec-2009	PH	NULL	*****	NULL	*****	7.1	6	NULL	*****	7.5	9
10-Jan-2010	PH	NULL	*****	NULL	*****	7.1	6	NULL	*****	7.5	9
10-Feb-2010	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.9	9
10-Mar-2010	PH	NULL	*****	NULL	*****	7.3	6	NULL	*****	7.9	9
10-Apr-2010	PH	NULL	*****	NULL	*****	6.8	6	NULL	*****	7.6	9
10-May-2010	PH	NULL	*****	NULL	*****	7.3	6	NULL	*****	7.9	9
10-Jun-2010	PH	NULL	*****	NULL	*****	7.4	6	NULL	*****	7.9	9
10-Jul-2010	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.9	9
10-Aug-2010	PH	NULL	*****	NULL	*****	7.4	6	NULL	*****	8	9
10-Sep-2010	PH	NULL	*****	NULL	*****	7.4	6	NULL	*****	7.8	9
10-Oct-2010	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.6	9
10-Nov-2010	PH	NULL	*****	NULL	*****	7.4	6	NULL	*****	7.6	9
10-Dec-2010	PH	NULL	*****	NULL	*****	7	6	NULL	*****	7.6	9
10-Jan-2011	PH	NULL	*****	NULL	*****	7.4	6	NULL	*****	7.6	9
10-Feb-2011	PH	NULL	*****	NULL	*****	7.3	6	NULL	*****	7.6	9
10-Mar-2011	PH	NULL	*****	NULL	*****	7.3	6	NULL	*****	7.6	9
10-Apr-2011	PH	NULL	*****	NULL	*****	7.1	6	NULL	*****	7.6	9
10-May-2011	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.6	9
10-Jun-2011	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.6	9
10-Jul-2011	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.6	9
10-Aug-2011	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.6	9
10-Sep-2011	PH	NULL	*****	NULL	*****	6.6	6	NULL	*****	7.4	9
10-Oct-2011	PH	NULL	*****	NULL	*****	7	6	NULL	*****	7.5	9
10-Nov-2011	PH	NULL	*****	NULL	*****	7	6	NULL	*****	7.4	9
10-Dec-2011	PH	NULL	*****	NULL	*****	7.3	6	NULL	*****	7.7	9
10-Jan-2012	PH	NULL	*****	NULL	*****	7.2	6	NULL	*****	7.6	9
10-Feb-2012	PH	NULL	*****	NULL	*****	7.3	6	NULL	*****	7.6	9
10-Mar-2012	PH	NULL	*****	NULL	*****	7.1	6	NULL	*****	7.6	9
						All pH data:		90th percentile		7.9	
								10th percentile		7.5	
10-Jun-2009	PHOSPHORUS, TOTAL (AS P)	0.4	0.04	NULL	*****	NULL	*****	19.3	2	NULL	*****
10-Jul-2009	PHOSPHORUS, TOTAL (AS P)	0.13	0.04	NULL	*****	NULL	*****	4.2	2	NULL	*****
10-Aug-2009	PHOSPHORUS, TOTAL (AS P)	0.78	0.04	NULL	*****	NULL	*****	15.9	2	NULL	*****
10-Sep-2009	PHOSPHORUS, TOTAL (AS P)	0.48	0.04	NULL	*****	NULL	*****	7.89	2	NULL	*****
10-Oct-2009	PHOSPHORUS, TOTAL (AS P)	0.49	0.04	NULL	*****	NULL	*****	35.9	2	NULL	*****
10-Nov-2009	PHOSPHORUS, TOTAL (AS P)	0.041	0.04	NULL	*****	NULL	*****	3.17	2	NULL	*****
10-Dec-2009	PHOSPHORUS, TOTAL (AS P)	0.04	0.04	NULL	*****	NULL	*****	5	2	NULL	*****

10-Jan-2010	PHOSPHORUS, TOTAL (AS P)	0.04	0.04	NULL	*****	NULL	*****	1.5	2	NULL	*****
10-Feb-2010	PHOSPHORUS, TOTAL (AS P)	0.03	0.04	NULL	*****	NULL	*****	1.2	2	NULL	*****
10-Mar-2010	PHOSPHORUS, TOTAL (AS P)	0.02	0.04	NULL	*****	NULL	*****	0.7	2	NULL	*****
10-Apr-2010	PHOSPHORUS, TOTAL (AS P)	0.006	0.04	NULL	*****	NULL	*****	0.3	2	NULL	*****
10-May-2010	PHOSPHORUS, TOTAL (AS P)	0.006	0.04	NULL	*****	NULL	*****	0.54	2	NULL	*****
10-Jun-2010	PHOSPHORUS, TOTAL (AS P)	0.004	0.04	NULL	*****	NULL	*****	0.46	2	NULL	*****
10-Jul-2010	PHOSPHORUS, TOTAL (AS P)	0.008	0.04	NULL	*****	NULL	*****	0.52	2	NULL	*****
10-Aug-2010	PHOSPHORUS, TOTAL (AS P)	0.0008	0.04	NULL	*****	NULL	*****	0.08	2	NULL	*****
10-Sep-2010	PHOSPHORUS, TOTAL (AS P)	0.014	0.04	NULL	*****	NULL	*****	1.12	2	NULL	*****
10-Oct-2010	PHOSPHORUS, TOTAL (AS P)	0.0006	0.04	NULL	*****	NULL	*****	0.21	2	NULL	*****
10-Nov-2010	PHOSPHORUS, TOTAL (AS P)	0.01	0.04	NULL	*****	NULL	*****	1.4	2	NULL	*****
10-Dec-2010	PHOSPHORUS, TOTAL (AS P)	0.001	0.04	NULL	*****	NULL	*****	0.14	2	NULL	*****
10-Jan-2011	PHOSPHORUS, TOTAL (AS P)	0.0009	0.04	NULL	*****	NULL	*****	0.15	2	NULL	*****
10-Feb-2011	PHOSPHORUS, TOTAL (AS P)	0.0023	0.04	NULL	*****	NULL	*****	1.6	2	NULL	*****
10-Mar-2011	PHOSPHORUS, TOTAL (AS P)	0.0002	0.04	NULL	*****	NULL	*****	0.1	2	NULL	*****
10-Apr-2011	PHOSPHORUS, TOTAL (AS P)	0.0007	0.04	NULL	*****	NULL	*****	0.13	2	NULL	*****
10-May-2011	PHOSPHORUS, TOTAL (AS P)	0.0005	0.04	NULL	*****	NULL	*****	0.26	2	NULL	*****
10-Jun-2011	PHOSPHORUS, TOTAL (AS P)	0.001	0.04	NULL	*****	NULL	*****	0.16	2	NULL	*****
10-Jul-2011	PHOSPHORUS, TOTAL (AS P)	0.13	0.04	NULL	*****	NULL	*****	9.3	2	NULL	*****
10-Aug-2011	PHOSPHORUS, TOTAL (AS P)	0.01	0.04	NULL	*****	NULL	*****	1.35	2	NULL	*****
10-Sep-2011	PHOSPHORUS, TOTAL (AS P)	0.001	0.04	NULL	*****	NULL	*****	0.12	2	NULL	*****
10-Oct-2011	PHOSPHORUS, TOTAL (AS P)	0.0004	0.04	NULL	*****	NULL	*****	0.04	2	NULL	*****
10-Nov-2011	PHOSPHORUS, TOTAL (AS P)	0.01	0.04	NULL	*****	NULL	*****	0.9	2	NULL	*****
10-Dec-2011	PHOSPHORUS, TOTAL (AS P)	0.009	0.04	NULL	*****	NULL	*****	1.5	2	NULL	*****
10-Jan-2012	PHOSPHORUS, TOTAL (AS P)	0.006	0.04	NULL	*****	NULL	*****	0.85	2	NULL	*****
10-Feb-2012	PHOSPHORUS, TOTAL (AS P)	0.007	0.04	NULL	*****	NULL	*****	1.24	2	NULL	*****
10-Mar-2012	PHOSPHORUS, TOTAL (AS P)	0.009	0.04	NULL	*****	NULL	*****	1.5	2	NULL	*****
10-Jun-2009	TKN (N-KJEL)	2.85	0.07	2.85	0.1	NULL	*****	137	3	137	4.5
10-Jul-2009	TKN (N-KJEL)	0.71	0.07	0.71	0.1	NULL	*****	23.5	3	23.5	4.5
10-Aug-2009	TKN (N-KJEL)	3.37	0.07	3.37	0.1	NULL	*****	69	3	69	4.5
10-Sep-2009	TKN (N-KJEL)	1.42	0.07	1.42	0.1	NULL	*****	23.5	3	23.5	4.5
10-Oct-2009	TKN (N-KJEL)	0.244	0.07	0.244	0.1	NULL	*****	17.9	3	17.9	4.5
10-Nov-2009	TKN (N-KJEL)	0.245	0.07	0.245	0.1	NULL	*****	19	3	19	4.5
10-Dec-2009	TKN (N-KJEL)	0.07	0.07	0.12	0.1	NULL	*****	8.5	3	15.7	4.5
10-Jan-2010	TKN (N-KJEL)	0.17	0.07	0.3	0.1	NULL	*****	5.4	3	9.8	4.5
10-Feb-2010	TKN (N-KJEL)	0.22	0.07	0.22	0.1	NULL	*****	8.3	3	8.3	4.5
10-Mar-2010	TKN (N-KJEL)	0.13	0.07	0.13	0.1	NULL	*****	3.8	3	3.8	4.5
10-Apr-2010	TKN (N-KJEL)	0.06	0.07	0.06	0.1	NULL	*****	2.7	3	2.7	4.5
10-May-2010	TKN (N-KJEL)	0.03	0.07	0.03	0.1	NULL	*****	2.6	3	2.6	4.5
10-Jun-2010	TKN (N-KJEL)	0.003	0.07	0.003	0.1	NULL	*****	0.4	3	0.4	4.5
10-Jul-2010	TKN (N-KJEL)	0.03	0.07	0.03	0.1	NULL	*****	2.1	3	2.1	4.5
10-Aug-2010	TKN (N-KJEL)	0.012	0.07	0.012	0.1	NULL	*****	1.3	3	1.3	4.5
10-Sep-2010	TKN (N-KJEL)	0.037	0.07	0.037	0.1	NULL	*****	2.9	3	2.9	4.5

10-Oct-2010	TKN (N-KJEL)	0.003	0.07	0.003	0.1	NULL	*****	1.2	3	1.2	4.5
10-Nov-2010	TKN (N-KJEL)	0.007	0.07	0.007	0.1	NULL	*****	1.1	3	1.1	4.5
10-Dec-2010	TKN (N-KJEL)	0.003	0.07	0.003	0.1	NULL	*****	0.3	3	0.3	4.5
10-Jan-2011	TKN (N-KJEL)	0.005	0.07	0.005	0.1	NULL	*****	0.8	3	0.8	4.5
10-Feb-2011	TKN (N-KJEL)	0.003	0.07	0.003	0.1	NULL	*****	2.3	3	2.3	4.5
10-Mar-2011	TKN (N-KJEL)	0.001	0.07	0.001	0.1	NULL	*****	0.9	3	0.9	4.5
10-Apr-2011	TKN (N-KJEL)	0.005	0.07	0.005	0.1	NULL	*****	1	3	1	4.5
10-May-2011	TKN (N-KJEL)	0.03	0.07	0.03	0.1	NULL	*****	1.5	3	1.5	4.5
10-Jun-2011	TKN (N-KJEL)	0.007	0.07	0.007	0.1	NULL	*****	0.7	3	0.7	4.5
10-Jul-2011	TKN (N-KJEL)	0.05	0.07	0.05	0.1	NULL	*****	4	3	4	4.5
10-Aug-2011	TKN (N-KJEL)	0.02	0.07	0.02	0.1	NULL	*****	2.1	3	2.1	4.5
10-Sep-2011	TKN (N-KJEL)	0.017	0.07	0.017	0.1	NULL	*****	1.5	3	1.5	4.5
10-Oct-2011	TKN (N-KJEL)	0.01	0.07	0.01	0.1	NULL	*****	1	3	1	4.5
10-Nov-2011	TKN (N-KJEL)	0.005	0.07	0.005	0.1	NULL	*****	0.42	3	0.42	4.5
10-Dec-2011	TKN (N-KJEL)	0.006	0.07	0.006	0.1	NULL	*****	1	3	1	4.5
10-Jan-2012	TKN (N-KJEL)	0.018	0.07	0.018	0.1	NULL	*****	2.5	3	2.5	4.5
10-Feb-2012	TKN (N-KJEL)	0.007	0.07	0.02	0.1	NULL	*****	4	3	6.1	4.5
10-Mar-2012	TKN (N-KJEL)	0.019	0.07	0.031	0.1	NULL	*****	3.3	3	5.1	4.5
10-Jun-2010	TSS	0.08	0.23	0.08	0.34	NULL	*****	8.5	10	8.5	15
10-Jul-2010	TSS	0.12	0.23	0.12	0.34	NULL	*****	7.5	10	7.5	15
10-Aug-2010	TSS	<QL	0.23	<QL	0.34	NULL	*****	<QL	10	<QL	15
10-Sep-2010	TSS	0.06	0.23	0.06	0.34	NULL	*****	5	10	5	15
10-Oct-2010	TSS	0.005	0.23	0.005	0.34	NULL	*****	1.8	10	1.8	15
10-Nov-2010	TSS	0.037	0.23	0.037	0.34	NULL	*****	5.4	10	5.4	15
10-Dec-2010	TSS	<0.01	0.23	<0.01	0.34	NULL	*****	<1	10	<1	15
10-Jan-2011	TSS	0.01	0.23	0.01	0.34	NULL	*****	1.8	10	1.8	15
10-Feb-2011	TSS	0.004	0.23	0.004	0.34	NULL	*****	3.7	10	3.7	15
10-Mar-2011	TSS	0.003	0.23	0.003	0.34	NULL	*****	1.9	10	1.9	15
10-Apr-2011	TSS	0.008	0.23	0.008	0.34	NULL	*****	2.1	10	2.1	15
10-May-2011	TSS	0.04	0.23	0.04	0.34	NULL	*****	2.2	10	2.2	15
10-Jun-2011	TSS	0.02	0.23	0.02	0.34	NULL	*****	2.2	10	2.2	15
10-Jul-2011	TSS	0.05	0.23	0.05	0.34	NULL	*****	3.4	10	3.4	15
10-Aug-2011	TSS	0.01	0.23	0.01	0.34	NULL	*****	1.9	10	1.9	15
10-Sep-2011	TSS	0.015	0.23	0.015	0.34	NULL	*****	1.3	10	1.3	15
10-Oct-2011	TSS	0.06	0.23	0.06	0.34	NULL	*****	6.6	10	6.6	15
10-Nov-2011	TSS	0.05	0.23	0.05	0.34	NULL	*****	4	10	4	15
10-Dec-2011	TSS	0.02	0.23	0.02	0.34	NULL	*****	2.8	10	2.8	15
10-Jan-2012	TSS	0.018	0.23	0.018	0.34	NULL	*****	2.4	10	2.4	15
10-Feb-2012	TSS	0.01	0.23	0.01	0.34	NULL	*****	2	10	2	15
10-Mar-2012	TSS	0.051	0.23	0.085	0.34	NULL	*****	8.9	10	14	15

## ATTACHMENT 8a

### Mixing Analysis for 0.006 MGD Facility

## Mixing Zone Predictions for Dominion Campground

Effluent Flow = 0.006 MGD — Low Flow  
Stream 7Q10 = 0.01 MGD  
Stream 30Q10 = 0.015 MGD  
Stream 1Q10 = 0.007 MGD  
Stream slope = 0.002886 ft/ft  
Stream width = 3 ft  
Bottom scale = 3  
Channel scale = 1

---

### Mixing Zone Predictions @ 7Q10

Depth = .0693 ft  
Length = 77.12 ft  
Velocity = .1191 ft/sec  
Residence Time = .0075 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 7Q10 may be used.

---

### Mixing Zone Predictions @ 30Q10

Depth = .0818 ft  
Length = 66.86 ft  
Velocity = .1324 ft/sec  
Residence Time = .0058 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 30Q10 may be used.

---

### Mixing Zone Predictions @ 1Q10

Depth = .061 ft  
Length = 86.04 ft  
Velocity = .1099 ft/sec  
Residence Time = .2175 hours

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 1Q10 may be used.

---



## Mixing Zone Predictions for Dominion Campground

Effluent Flow = 0.006 MGD — High Flow  
Stream 7Q10 = 0.34 MGD  
Stream 30Q10 = 0.68 MGD  
Stream 1Q10 = 0.24 MGD  
Stream slope = 0.002886 ft/ft  
Stream width = 6 ft  
Bottom scale = 3  
Channel scale = 1

---

### Mixing Zone Predictions @ 7Q10

Depth = .2948 ft  
Length = 89.39 ft  
Velocity = .3028 ft/sec  
Residence Time = .0034 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 7Q10 may be used.

---

### Mixing Zone Predictions @ 30Q10

Depth = .4529 ft  
Length = 60.57 ft  
Velocity = .3908 ft/sec  
Residence Time = .0018 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 30Q10 may be used.

---

### Mixing Zone Predictions @ 1Q10

Depth = .2386 ft  
Length = 107.82 ft  
Velocity = .266 ft/sec  
Residence Time = .1126 hours

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 1Q10 may be used.

---



## ATTACHMENT 8b

### Mixing Analysis for 0.010 MGD Facility

)

## Mixing Zone Predictions for Dominion Campground

Effluent Flow = 0.010 MGD — Low Flow  
Stream 7Q10 = 0.01 MGD  
Stream 30Q10 = 0.015 MGD  
Stream 1Q10 = 0.007 MGD  
Stream slope = 0.002886 ft/ft  
Stream width = 3 ft  
Bottom scale = 3  
Channel scale = 1

---

### Mixing Zone Predictions @ 7Q10

Depth = .0791 ft  
Length = 68.94 ft  
Velocity = .1299 ft/sec  
Residence Time = .0061 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 7Q10 may be used.

---

### Mixing Zone Predictions @ 30Q10

Depth = .0911 ft  
Length = 60.85 ft  
Velocity = .1416 ft/sec  
Residence Time = .005 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 30Q10 may be used.

---

### Mixing Zone Predictions @ 1Q10

Depth = .0719 ft  
Length = 74.72 ft  
Velocity = .122 ft/sec  
Residence Time = .1702 hours

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 1Q10 may be used.

---



## Mixing Zone Predictions for Dominion Campground

Effluent Flow = 0.010 MGD — *HIGH FLOW*  
Stream 7Q10 = 0.34 MGD  
Stream 30Q10 = 0.68 MGD  
Stream 1Q10 = 0.24 MGD  
Stream slope = 0.002886 ft/ft  
Stream width = 6 ft  
Bottom scale = 3  
Channel scale = 1

---

### Mixing Zone Predictions @ 7Q10

Depth = .2966 ft  
Length = 88.93 ft  
Velocity = .3041 ft/sec  
Residence Time = .0034 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 7Q10 may be used.

---

### Mixing Zone Predictions @ 30Q10

Depth = .4546 ft  
Length = 60.35 ft  
Velocity = .3916 ft/sec  
Residence Time = .0018 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 30Q10 may be used.

---

### Mixing Zone Predictions @ 1Q10

Depth = .221 ft  
Length = 121.7 ft  
Velocity = .2677 ft/sec  
Residence Time = .1263 hours

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 1Q10 may be used.

---



## ATTACHMENT 9

### Ammonia Limitation Derivations

7/17/2015 3:10:09 PM

Facility = Dominion Campground @ 0.006 MGD

Chemical = Ammonia

Chronic averaging period = 30

WLAa = 22

WLAc = 4.98

Q.L. = 0.2

# samples/mo. = 1

# samples/wk. = 1

#### Summary of Statistics:

# observations = 1

Expected Value = 9

Variance = 29.16

C.V. = 0.6

97th percentile daily values = 21.9007

97th percentile 4 day average = 14.9741

97th percentile 30 day average = 10.8544

# < Q.L. = 0

Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity

Maximum Daily Limit = 10.0479970652132

Average Weekly limit = 10.0479970652132

Average Monthly Limit = 10.0479970652132

The data are:

7/17/2015 3:10:49 PM

Facility = Dominion Campground @ 0.010 MGD

Chemical = Ammonia

Chronic averaging period = 30

WLAa = 17.2

WLAc = 3.56

Q.L. = 0.2

# samples/mo. = 1

# samples/wk. = 1

#### Summary of Statistics:

# observations = 1

Expected Value = 9

Variance = 29.16

C.V. = 0.6

97th percentile daily values = 21.9007

97th percentile 4 day average = 14.9741

97th percentile 30 day average = 10.8544

# < Q.L. = 0

Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity

Maximum Daily Limit = 7.18290553256207

Average Weekly limit = 7.18290553256207

Average Monthly Limit = 7.18290553256207

The data are:

## ATTACHMENT 10

### Chlorine Limitation Derivations

7/17/2015 3:19:57 PM

Facility = Dominion Campground @ 0.006 MGD

Chemical = Chlorine

Chronic averaging period = 4

WLAa = 0.041

WLAc = 0.029

Q.L. = 0.1

# samples/mo. = 28

# samples/wk. = 7

#### Summary of Statistics:

# observations = 1

Expected Value = .2

Variance = .0144

C.V. = 0.6

97th percentile daily values = .486683

97th percentile 4 day average = .332758

97th percentile 30 day average = .241210

# < Q.L. = 0

Model used = BPJ Assumptions, type 2 data

A limit is needed based on Acute Toxicity

Maximum Daily Limit = 0.041

Average Weekly limit = 2.50389954768332E-02

Average Monthly Limit = 2.04423198718993E-02

The data are:

0.2

7/17/2015 3:16:21 PM

Facility = Dominion Campground @ 0.010 MGD

Chemical = Chlorine

Chronic averaging period = 4

WLAa = 0.032

WLAc = 0.022

Q.L. = 0.1

# samples/mo. = 28

# samples/wk. = 7

#### Summary of Statistics:

# observations = 1

Expected Value = .2

Variance = .0144

C.V. = 0.6

97th percentile daily values = .486683

97th percentile 4 day average = .332758

97th percentile 30 day average = .241210

# < Q.L. = 0

Model used = BPJ Assumptions, type 2 data

A limit is needed based on Acute Toxicity

Maximum Daily Limit = 0.032

Average Weekly limit = 1.95426306160649E-02

Average Monthly Limit = 1.59549813634336E-02

The data are:

0.2

# ATTACHMENT 11a

Stream Model  
for  
0.006 MGD Facility

REGIONAL MODELING SYSTEM    VERSION 4.0  
Model Input File for the Discharge  
to NI RIVER, UT.

**File Information**

File Name: C:\Users\nfc15368\Desktop\6K MGD Dominion.mod  
Date Modified: August 13, 2015

**Water Quality Standards Information**

Stream Name: NI RIVER, UT  
River Basin: York River Basin  
Section: 3  
Class: III - Nontidal Waters (Coastal and Piedmont)  
Special Standards: None

**Background Flow Information**

Gauge Used: 016373800  
Gauge Drainage Area: 77.4 Sq.Mi.  
Gauge 7Q10 Flow: 0.17 MGD  
Headwater Drainage Area: 4.39 Sq.Mi.  
Headwater 7Q10 Flow: 9.642119E-03 MGD (Net; includes Withdrawals/Discharges)  
Withdrawal/Discharges: 0 MGD  
Incremental Flow in Segments: 2.196382E-03 MGD/Sq.Mi.

**Background Water Quality**

Background Temperature: 25 Degrees C  
Background cBOD5: 2 mg/l  
Background TKN: 0 mg/l  
Background D.O.: 7.460972 mg/l

**Model Segmentation**

Number of Segments: 1  
Model Start Elevation: 155 ft above MSL  
Model End Elevation: 129 ft above MSL

REGIONAL MODELING SYSTEM    VERSION 4.0  
Model Input File for the Discharge  
to NI RIVER, UT.

**Segment Information for Segment 1**

Definition Information

Segment Definition:	A discharge enters.
Discharge Name:	DOMINION CAMPGROUND
VPDES Permit No.:	VA0091014

Discharger Flow Information

Flow:	0.006 MGD
cBOD5:	20 mg/l
TKN:	5 mg/l
D.O.:	6 mg/l
Temperature:	25 Degrees C

Geographic Information

Segment Length:	0.23 miles
Upstream Drainage Area:	4.39 Sq.Mi.
Downstream Drainage Area:	0 Sq.Mi.
Upstream Elevation:	155 Ft.
Downstream Elevation:	129 Ft.

Hydraulic Information

Segment Width:	3.001 Ft.
Segment Depth:	0.037 Ft.
Segment Velocity:	0.217 Ft./Sec.
Segment Flow:	0.016 MGD
Incremental Flow:	-0.01 MGD (Applied at end of segment.)

Channel Information

Cross Section:	Rectangular
Character:	Moderately Meandering
Pool and Riffle:	Yes
Percent Pools:	30
Percent Riffles:	70
Pool Depth:	0.1 Ft.
Riffle Depth:	0.01 Ft.
Bottom Type:	Gravel
Sludge:	None
Plants:	Few
Algae:	None

"Model Run For C:\Users\nfc15368\Desktop\6K MGD Dominion.mod On 8/13/2015 10:29:11 AM"

"Model is for NI RIVER, UT."

"Model starts at the DOMINION CAMPGROUND discharge."

"Background Data"

"7Q10"	"CBOD5"	"TKN"	"DO"	"Temp"
"(mgd)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"deg C"
.0096,	2,	0,	7.461,	25

"Discharge/Tributary Input Data for Segment 1"

"Flow"	"CBOD5"	"TKN"	"DO"	"Temp"
"(mgd)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"deg C"
.006,	20,	5,	6,	25

"Hydraulic Information for Segment 1"

"Length"	"width"	"Depth"	"velocity"
"(mi)"	"(ft)"	"(ft)"	"(ft/sec)"
.23,	3.001,	.037,	.217

"Initial Mix Values for Segment 1"

"Flow"	"DO"	"CBOD"	"nBOD"	"DOSat"	"Temp"
"(mgd)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"deg C"
.0156,	6.901,	22.261,	3.322,	8.294,	25

"Rate Constants for Segment 1. - (All units Per Day)"

"k1"	"k1@T"	"k2"	"k2@T"	"kn"	"kn@T"	"BD"	"BD@T"
1.2,	1.51,	20,	22.518,	.3,	.441,	0,	0

"Output for Segment 1"

"Segment starts at DOMINION CAMPGROUND"

"Total"	"Segm."	"Dist."	"Dist."	"DO"	"CBOD"	"nBOD"
"(mi)"	"(mi)"	"(mi)"	"(mi)"	"(mg/l)"	"(mg/l)"	"(mg/l)"
0,	0,	0,	0,	6.901,	22.261,	3.322
.1,	.1,	.1,	.1,	6.84,	21.334,	3.281
.2,	.2,	.2,	.2,	6.837,	20.446,	3.241
.23,	.23,	.23,	.23,	6.842,	20.187,	3.229

"END OF FILE"

# ATTACHMENT 11b

Stream Model  
for  
0.010 MGD Facility

REGIONAL MODELING SYSTEM    VERSION 4.0  
**Model Input File for the Discharge  
to NI RIVER, UT.**

**File Information**

File Name: C:\Users\nfc15368\Desktop\10K MGD Dominion.mod  
Date Modified: August 13, 2015

**Water Quality Standards Information**

Stream Name: NI RIVER, UT  
River Basin: York River Basin  
Section: 3  
Class: III - Nontidal Waters (Coastal and Piedmont)  
Special Standards: None

**Background Flow Information**

Gauge Used: 016373800  
Gauge Drainage Area: 77.4 Sq.Mi.  
Gauge 7Q10 Flow: 0.17 MGD  
Headwater Drainage Area: 4.39 Sq.Mi.  
Headwater 7Q10 Flow: 9.642119E-03 MGD (Net; includes Withdrawals/Discharges)  
Withdrawal/Discharges: 0 MGD  
Incremental Flow in Segments: 2.196382E-03 MGD/Sq.Mi.

**Background Water Quality**

Background Temperature: 25 Degrees C  
Background cBOD5: 2 mg/l  
Background TKN: 0 mg/l  
Background D.O.: 7.460972 mg/l

**Model Segmentation**

Number of Segments: 1  
Model Start Elevation: 155 ft above MSL  
Model End Elevation: 129 ft above MSL

REGIONAL MODELING SYSTEM    VERSION 4.0  
Model Input File for the Discharge  
to NI RIVER, UT.

**Segment Information for Segment 1**

Definition Information

Segment Definition:	A discharge enters.
Discharge Name:	DOMINION CAMPGROUND
VPDES Permit No.:	VA0091014

Discharger Flow Information

Flow:	0.01 MGD
cBOD5:	20 mg/l
TKN:	5 mg/l
D.O.:	6 mg/l
Temperature:	25 Degrees C

Geographic Information

Segment Length:	0.23 miles
Upstream Drainage Area:	4.39 Sq.Mi.
Downstream Drainage Area:	0 Sq.Mi.
Upstream Elevation:	155 Ft.
Downstream Elevation:	129 Ft.

Hydraulic Information

Segment Width:	3 Ft.
Segment Depth:	0.049 Ft.
Segment Velocity:	0.205 Ft./Sec.
Segment Flow:	0.02 MGD
Incremental Flow:	-0.01 MGD (Applied at end of segment.)

Channel Information

Cross Section:	Rectangular
Character:	Moderately Meandering
Pool and Riffle:	Yes
Percent Pools:	30
Percent Riffles:	70
Pool Depth:	0.13 Ft.
Riffle Depth:	0.01 Ft.
Bottom Type:	Gravel
Sludge:	None
Plants:	Few
Algae:	None

"Model Run For C:\Users\nfc15368\Desktop\10K MGD Dominion.mod On 8/13/2015 10:31:24 AM"

"Model is for NI RIVER, UT."

"Model starts at the DOMINION CAMPGROUND discharge."

"Background Data"

"7Q10"	"CBOD5"	"TKN"	"DO"	"Temp"
"(mgd)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"deg C"
.0096,	2,	0,	7.461,	25

"Discharge/Tributary Input Data for Segment 1"

"Flow"	"CBOD5"	"TKN"	"DO"	"Temp"
"(mgd)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"deg C"
.01,	20,	5,	6,	25

"Hydraulic Information for Segment 1"

"Length"	"width"	"Depth"	"velocity"
"(mi)"	"(ft)"	"(ft)"	"(ft/sec)"
.23,	3,	.049,	.205

"Initial Mix Values for Segment 1"

"Flow"	"DO"	"CBOD"	"nBOD"	"DOSat"	"Temp"
"(mgd)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"(mg/l)"	"deg C"
.0196,	6.717,	27.91,	4.409,	8.294,	25

"Rate Constants for Segment 1. - (All units Per Day)"

"k1"	"k1@T"	"k2"	"k2@T"	"kn"	"kn@T"	"BD"	"BD@T"
1.2,	1.51,	20,	22.518,	.3,	.441,	0,	0

"Output for Segment 1"

"Segment starts at DOMINION CAMPGROUND"

"Total"	"Segm."	"DO"	"CBOD"	"nBOD"
"Dist."	"Dist."	"(mg/l)"	"(mg/l)"	"(mg/l)"
"(mi)"	"(mi)"	"(mg/l)"	"(mg/l)"	"(mg/l)"
0,	0,	6.717,	27.91,	4.409
.1,	.1,	6.554,	26.682,	4.351
.2,	.2,	6.51,	25.508,	4.294
.23,	.23,	6.51,	25.166,	4.277

"END OF FILE"

## ATTACHMENT 12

### Public Notice

5

Public Notice – Environmental Permit

**PURPOSE OF NOTICE:** To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated wastewater into a water body in Spotsylvania County, Virginia.

**PUBLIC COMMENT PERIOD:** August 27, 2015 to September 28, 2015

**PERMIT NAME:** Virginia Pollutant Discharge Elimination System Permit – Wastewater issued by DEQ, under the authority of the State Water Control Board

**APPLICANT NAME, ADDRESS AND PERMIT NUMBER:** Dominion Campground, Inc. TA Fredericksburg KOA  
7400 Brookside Lane, Fredericksburg, VA 22408  
VA0091014

**PROJECT DESCRIPTION:** Dominion Campground, Inc. TA Fredericksburg KOA has applied for a modified permit for the private Dominion Campground, Incorporated. The applicant proposes to release treated sewage wastewaters from a campground at a rate of 0.006 million gallons per day into a water body. The permit also includes an expansion at 0.010 million gallons per day. This modification reflects the relocation of the wastewater outfall within a free flowing portion of the receiving stream. Sludge from the treatment process will be transported to the Massaponax Wastewater Treatment Plant (VA0025658) for further treatment and final disposal. The facility proposes to release the treated sewage in the unnamed tributary to the Ni River Spotsylvania County in the York River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, carbonaceous-biochemical oxygen demand, total suspended solids, dissolved oxygen, ammonia and total residual chlorine.

**HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING:** DEQ accepts comments and requests for public hearing by hand-delivery, email, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

**CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION:** The public may review the draft permit and application at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.

Name: Douglas Frasier

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3873 Email: Douglas.Frasier@deq.virginia.gov Fax: (703) 583-3821